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ABSTRACT

In anticipation of the base-year survey of the National Education Longitudinal Study of 1988 (NELS:88), a field test of the questionnaire and test items was conducted in 1987. NELS:88 is a national, longitudinal study designed to provide trend data about the critical transitions of young people as they develop, attend school, and enter the work force. The base-year NELS will survey a sample of 26,200 eighth graders from 800 public and 200 private schools. Follow-up surveys will be repeated every two years. NELS questionnaires include surveys of students, teachers, administrators, and parents; both biographical and attitudinal items are included. The student survey also contains cognitive tests in reading/English, mathematics, science, and social studies. Five states were selected as field test sites for these instruments. A number of analyses were conducted on the test items and the sampling procedures. Both classical test theory and latent trait theory were used to determine the most appropriate items. The field test also examined the effects of conducting orientations and ways of distributing parent questionnaires. Results generally demonstrated the appropriateness of the survey design, procedures, and instruments. Problems with specific items were reported. This report includes chapters on: (1) field test preparation; (2) student data collection; (3) analysis of student survey results; (4) parent survey; and (5) school and teacher surveys. The extensive appendices contain nine research instruments: Eighth Grade Locator Booklet; Eighth Grade Questionnaire; Tenth Grade Questionnaire; Twelfth Grade Questionnaire; Parent Questionnaire; Teacher Questionnaire; School Questionnaire; New York Supplement; and Summary of Cognitive Test Battery. (GDC)

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FIELD TEST REPORT

NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988 (NELS:88)

Steven J. Ingels et al.

July 1, 1987

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Prepared for:

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Center for Education Statistics
U.S. Department of Education

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NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988

FIELD TEST REPORT

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CHAPTER 7--CONCLUSIONS.........................Steven Ingels

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OVERVIEW OF THE FIELD TEST OF THE NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988 (NELS:88)

Background

In anticipation of the base-year effort for NELS:88, NORC and its subcontractors, Educational Testing Service and Westat, conducted a field test in early 1987. The field test had three general purposes: to test instruments, forms, and procedures; to experiment with different approaches to data collection; and to evaluate the overall study design.

NELS:88 joins the National Longitudinal Study of the High School Class of 1972 (NLS-72) and High School and Beyond (HS&B) as the third in a series of longitudinal studies sponsored by the Center for Education Statistics of the U.S. Department of Education. These studies are designed to provide trend data about critical transitions experienced by young people as they develop, attend school, and embark on careers. NELS:88 focuses on a sample of students who will be enrolled in the eighth grade in 1988. Follow-up surveys at two-year intervals will be conducted to facilitate long-term trend analyses.

Study Design

The overall design for the study includes four major component surveys--of students, parents, school administrators and teachers. (The student survey includes a cognitive test component.) The field test results were used to refine the questionnaires for these four respondent populations, and to calibrate items of the student cognitive test battery so that reliable and valid base-year versions of this longitudinal test could be developed. The major elements (and their relationships in time) of the field test student, teacher and school, and parent surveys are depicted in the three attached process diagrams.

Survey Instruments

The primary research instruments are a series of cognitive test batteries in four subject matters (Reading/English, Mathematics, Science, and Social Studies), and questionnaires covering four respondent populations--students, parents, teachers, and school administrators. There are also three supplemental sections to the questionnaires: (a) the Language Minority Supplement, funded by the Office of Bilingual Education and Minority Language Affairs; (b) the Mathematics and Science Supplement, sponsored by the National Science Foundation; (c) the Gifted and Talented Supplement, funded by the Office of Planning, Budget and Evaluation of the Department of Education.

Sample

For the base-year survey (1988), a nationally representative sample of 1,000 schools (800 public schools and 200 private schools, including parochial institutions) will be drawn. Within this school sample, 26,200 eighth grade students will be selected at random.

In the field test, five states were selected as field test sites, on the basis of their demographic heterogeneity and regional representativeness. Two counties were chosen within each state. Schools were chosen with probability proportional to eighth grade enrollment within a regular public school stratum and a special oversampled private school stratum. Some fifty-one eighth grade schools participated. Eighth grade students were randomly selected, and Asian-Pacific and Hispanic students were oversampled. School administrators and teachers were sampled in all eighth grade schools; the parent survey was conducted in a subsample of 34 schools. The field test also included thirty high schools, so that tenth and twelfth grade cognitive test observations could be obtained. Some 1,408 eighth grade students, 2,082 high school students, 785 parents, 281 teachers, and 46 administrators completed the field test research instruments.

Evaluation of Instruments and Procedures

Instruments.

Evaluation of questionnaire data was carried out on seven levels:

- Analysis of critical item edit and retrieval
- Analysis of item non-response
- Logical consistency analyses (inter-item consistency, filter and dependent question consistency)
- Analysis of response variation by position in the questionnaire
- Comparison of student and parent reports
- Analysis of scale reliabilities
- Analysis of item response variation by selected respondent characteristics

Cognitive test item parameters were estimated for the eighth, tenth, and twelfth grades. Field test data were evaluated, using both classical and Item Response Theory (IRT) techniques to determine the most appropriate items for inclusion in final (base year) forms of each of the four tests.

Procedures.

Major data collection procedures evaluated in the field test included: sampling and sample updating; state, district, and school contacting; data collection for all four respondent populations; and data preparation. The various documents used in these procedures also were assessed. Both quantitative analyses (for example, comparison of response rate and error differences associated with different procedures) and qualitative analyses (including debriefings of field staff and school coordinators) inform the evaluation of procedures and the formulation of recommendations for the base year.

The field test included several experiments in data collection methods. The two most important of these were an investigation of the effects of holding orientation days, and an experiment involving different means of distributing the parent questionnaire.

Results and Recommendations

The field test demonstrated that the survey design, procedures, and instruments are generally appropriate for the objectives of the study.

High individual response rates were obtained. The eighth grade student completion rate was 92 percent, teacher 96 percent, school (principal/administrator) 90 percent, and parent 92.1 percent (for those parent cases receiving the full follow-up treatment whose children participated; or 84.7 percent of the parents of all eligible students). It would appear that high eighth grade response rates generally can be obtained, though securing district and school-level participation will remain a major challenge.

The field test also identified a number of areas in which procedural modifications should be made. Areas for improvement include identification and selection of OBEMLA supplementary students, updating of the student sample, and teacher selection. Analysis of questionnaire data confirmed that the general approach to data collection is sound, but numerous specific modifications in item wording and questionnaire format are desirable.

Field test results showed that adults are better reporters of certain kinds of important information than are eighth-grade childen. Items in the student questionnaire should be limited to those for which the individual student is the only or best informant--for example, student experiences, perceptions, beliefs, expectations and attitudes. Data on parents' occupations, receipt of special services, health history, and home and learning environments should be collected primarily from parents and school administrators and teachers.

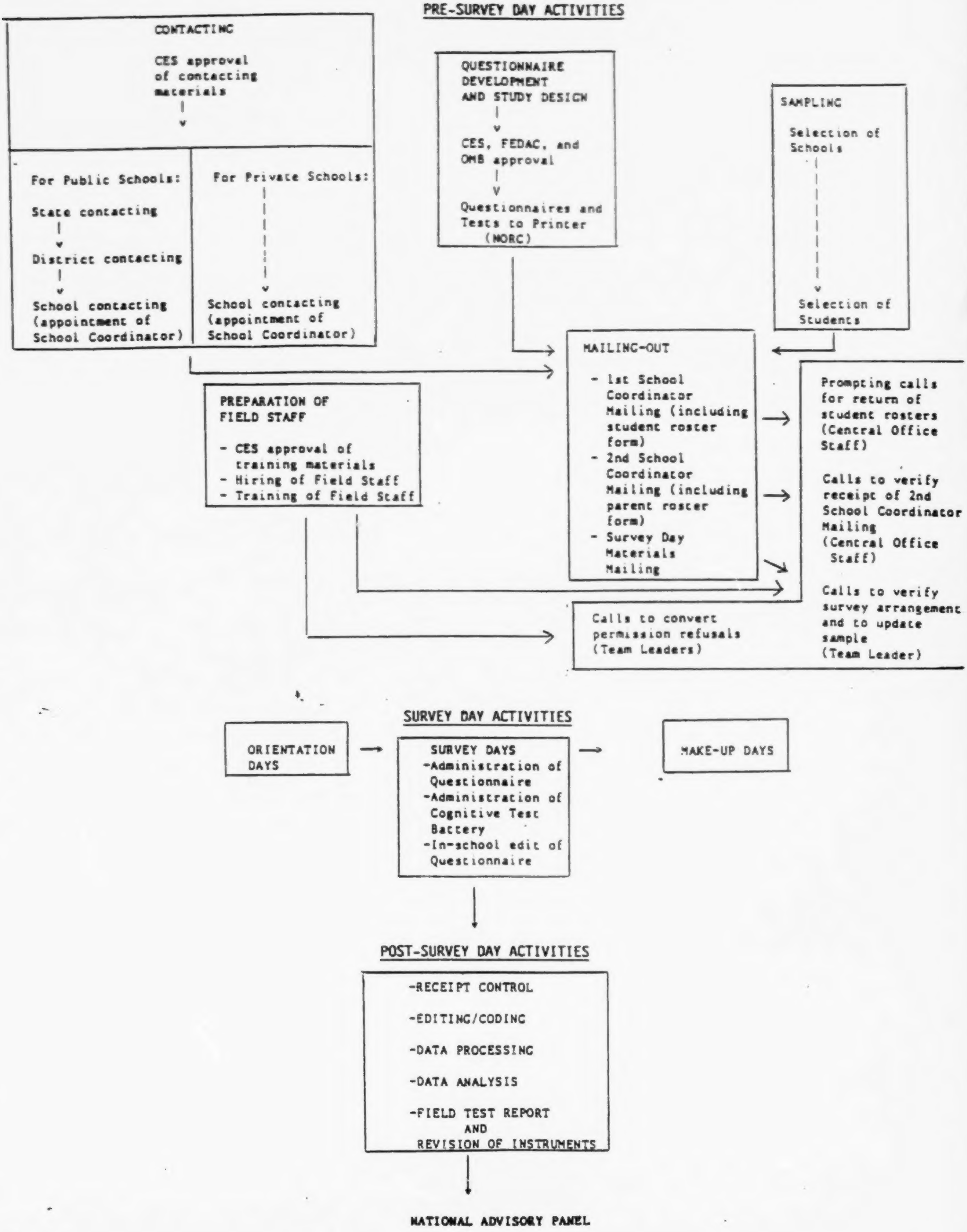
Results argue for giving serious consideration to holding Orientation Day in all schools. At the very least, orientations should be scheduled for schools that are likely to be disorganized and difficult to work in, schools that insist on explicit parental consent, and many non-Catholic private schools.

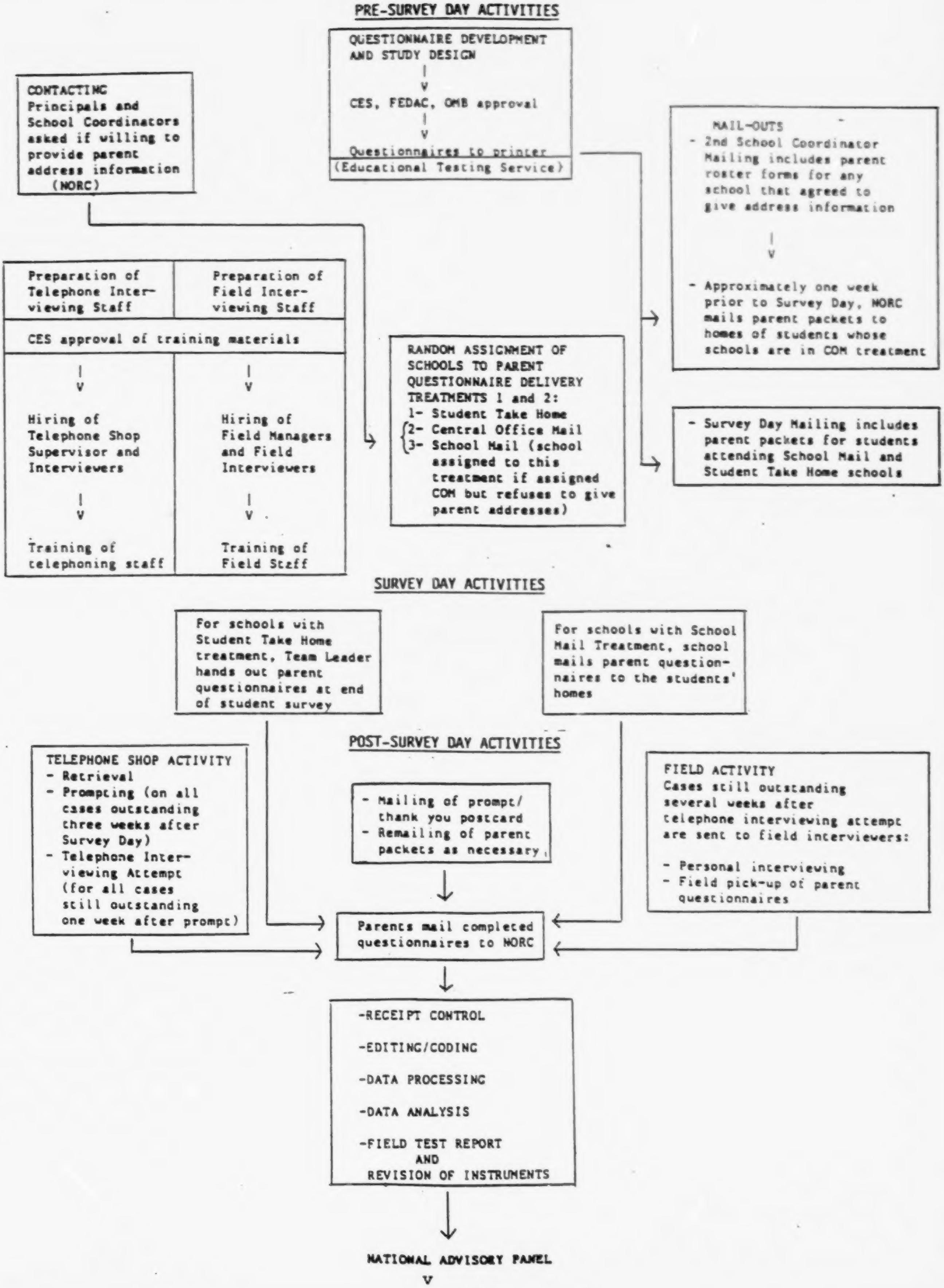
Further thought should be given to use of non-English contacting materials and survey instruments, and to the possibility of offering schools, districts, and perhaps individuals selected data from the cognitive tests and the several questionnaires.

The attached summary of the field test report gives further detail about the principal methods and findings of the field test. The attached process diagrams illustrate the flow of field test events.

NELS:88 FIELD TEST

STUDENT SURVEY


PRE-SURVEY DAY ACTIVITIES
CONTACTING
CES approval of contacting materials
For Public Schools:
State contacting
District contacting
School contacting (appointment of School Coordinator)
For Private Schools:
School contacting (appointment of School Coordinator)
QUESTIONNAIRE DEVELOPMENT AND STUDY DESIGN
CES, FEDAC, and OMB approval
Questionnaires and Tests to Printer (NORC)
SAMPLING
Selection of Schools
Selection of Students
MAILING-OUT
- 1st School Coordinator Mailing (including student roster form)
- 2nd School Coordinator Mailing (including parent roster form)
- Survey Day Materials Mailing
Prompting calls for return of student rosters (Central Office Staff)
Calls to verify receipt of 2nd School Coordinator Mailing (Central Office Staff)
Calls to verify survey arrangement and to update sample (Team Leader)
PREPARATION OF FIELD STAFF
- CES approval of training materials
- Hiring of Field Staff
- Training of Field Staff
Calls to convert permission refusals (Team Leaders)
SURVEY DAY ACTIVITIES
ORIENTATION DAYS
SURVEY DAYS
-Administration of Questionnaire
-Administration of Cognitive Test Battery
-In-school edit of Questionnaire
MAKE-UP DAYS
POST-SURVEY DAY ACTIVITIES
-RECEIPT CONTROL
-EDITING/CODING
-DATA PROCESSING
-DATA ANALYSIS
-FIELD TEST REPORT AND REVISION OF INSTRUMENTS
NATIONAL ADVISORY PANEL



PRE-SURVEY DAY ACTIVITIES

QUESTIONNAIRE DEVELOPMENT AND STUDY DESIGN
CES, FEDAC, OMB approval
Questionnaires to printer
(Educational Testing Service)

CONTACTING
Principals and School Coordinators asked if willing to provide parent address information (NORC)

MAIL-OUTS
- 2nd School Coordinator Mailing includes parent roster forms for any school that agreed to give address information
- Approximately one week prior to Survey Day, NORC mails parent packets to homes of students whose schools are in COM treatment

Preparation of Telephone Interviewing Staff

Preparation of Field Interviewing Staff

CES approval of training materials

Hiring of Telephone Shop Supervisor and Interviewers

Training of telephoning staff

Hiring of Field Managers and Field Interviewers

Training of Field Staff

RANDOM ASSIGNMENT OF SCHOOLS TO PARENT QUESTIONNAIRE DELIVERY TREATMENTS 1 and 2:
1- Student Take Home
2- Central Office Mail
3- School Mail (school assigned to this treatment if assigned COM but refuses to give parent addresses)

- Survey Day Mailing includes parent packets for students attending School Mail and Student Take Home schools

SURVEY DAY ACTIVITIES

For schools with Student Take Home treatment, Team Leader hands out parent questionnaires at end of student survey

For schools with School Mail Treatment, school mails parent questionnaires to the students' homes

POST-SURVEY DAY ACTIVITIES

TELEPHONE SHOP ACTIVITY
- Retrieval
- Prompting (on all cases outstanding three weeks after Survey Day)
- Telephone Interviewing Attempt (for all cases still outstanding one week after prompt)

- Mailing of prompt/thank you postcard
- Remailing of parent packets as necessary

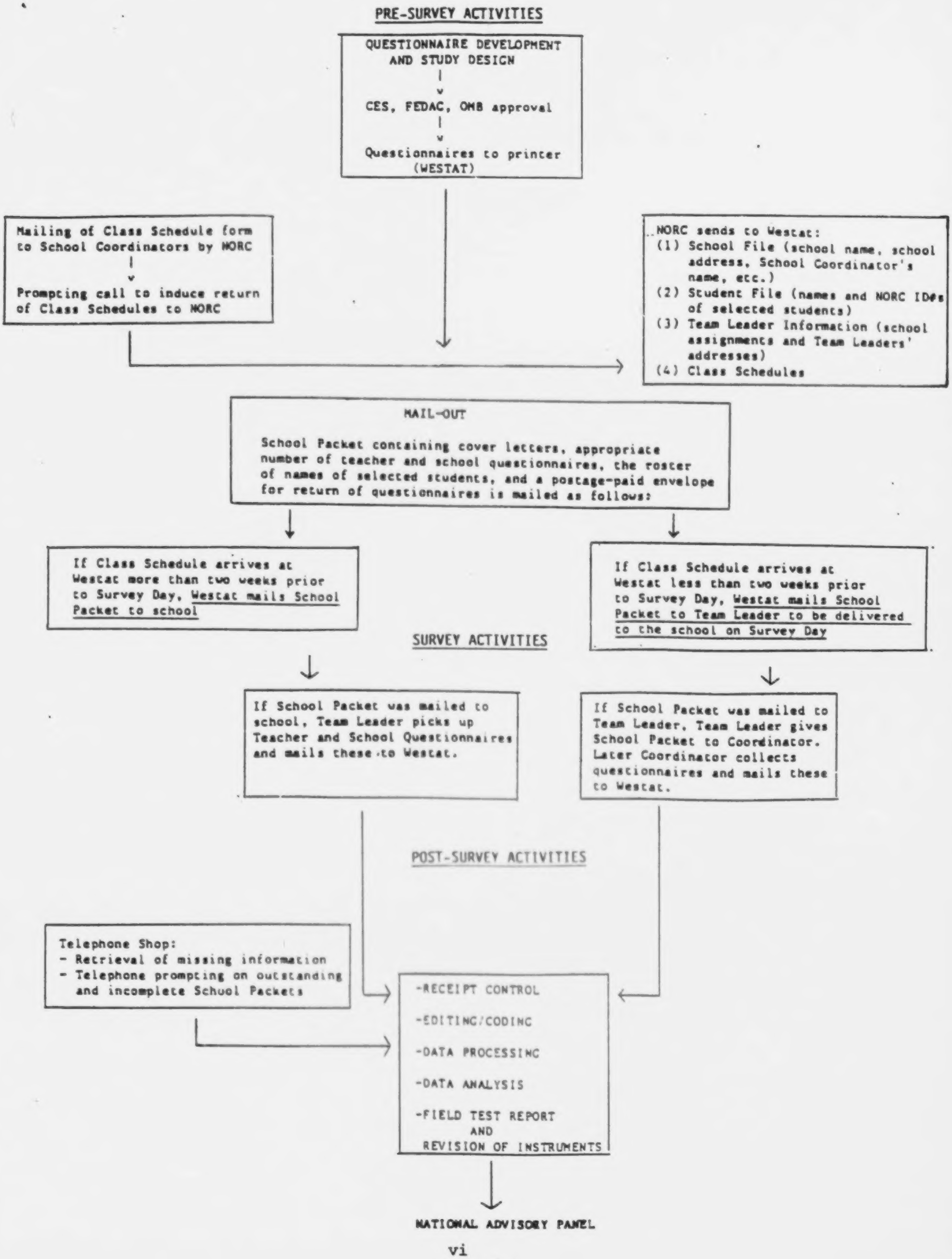
FIELD ACTIVITY
Cases still outstanding several weeks after telephone interviewing attempt are sent to field interviewers:
- Personal interviewing
- Field pick-up of parent questionnaires

Parents mail completed questionnaires to NORC

-RECEIPT CONTROL
-EDITING/CODING
-DATA PROCESSING
-DATA ANALYSIS
-FIELD TEST REPORT AND REVISION OF INSTRUMENTS

NATIONAL ADVISORY PANEL

TEACHER AND SCHOOL SURVEYS



PRE-SURVEY ACTIVITIES

QUESTIONNAIRE DEVELOPMENT AND STUDY DESIGN

CES, FEDAC, OMB approval

Questionnaires to printer (WESTAT)

Mailing of Class Schedule form to School Coordinators by NORC

Prompting call to induce return of Class Schedules to NORC

NORC sends to Westat:
(1) School File (school name, school address, School Coordinator's name, etc.)
(2) Student File (names and NORC ID#s of selected students)
(3) Team Leader Information (school assignments and Team Leaders' addresses)
(4) Class Schedules

MAIL-OUT

School Packet containing cover letters, appropriate number of teacher and school questionnaires, the roster of names of selected students, and a postage-paid envelope for return of questionnaires is mailed as follows:

If Class Schedule arrives at Westat more than two weeks prior to Survey Day, Westat mails School Packet to school

If Class Schedule arrives at Westat less than two weeks prior to Survey Day, Westat mails School Packet to Team Leader to be delivered to the school on Survey Day

SURVEY ACTIVITIES

If School Packet was mailed to school, Team Leader picks up Teacher and School Questionnaires and mails these to Westat.

If School Packet was mailed to Team Leader, Team Leader gives School Packet to Coordinator. Later Coordinator collects questionnaires and mails these to Westat.

POST-SURVEY ACTIVITIES

Telephone Shop:
- Retrieval of missing information
- Telephone prompting on outstanding and incomplete School Packets

-RECEIPT CONTROL

-EDITING/CODING

-DATA PROCESSING

-DATA ANALYSIS

-FIELD TEST REPORT AND REVISION OF INSTRUMENTS

NATIONAL ADVISORY PANEL

THE FIELD TEST OF
THE NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988 (NELS:88)
SUMMARY

CHAPTER ONE: FIELD TEST PREPARATION

Sampling

Sampling of states and schools. Five states were selected as field test sites, on the basis of their importance to success of the base-year study, their demographic heterogeneity, and their representativeness of a particular region of the U.S. Two counties were chosen within each state. Fifty-two schools were then chosen with probability proportional to eighth grade enrollment within a regular public school stratum and a special oversampled private school stratum.

Since high school level test observations were needed in order to calibrate the Cognitive Test Battery, thirty high schools were also included in the sample. High schools were chosen with consideration to their proximity to selected eighth grade schools. Sixty tenth and sixty twelfth grade students were randomly sampled from the eligible students in each of the selected high schools.

Sampling of students. The next stage of sampling, selection of specific students, took place soon after the school principal informed NORC that a school would participate in the NELS:88 Field Test. NORC requested complete rosters of all students classified as eighth graders during the fall term of the 1986-87 school year. The school principal, or his or her designated representative (the School Coordinator), was asked to review the roster to identify students whose physical, emotional or learning handicaps or linguistic disabilities would preclude participation in the survey. The Coordinator was asked to classify all eligible students as Hispanic, Asian-Pacific Islander, or Core (neither Hispanic nor Asian-Pacific Islander). Once the annotated roster was received by NORC, Asian-Pacific Islanders were drawn into the sample at double their proportional representation in the school's eighth-grade population. Hispanics were drawn into the sample at the ratio of their representation in the school's eighth-grade population. The balance of students needed to reach the desired sample size of thirty-two was selected from the list of Core students. Approximately ten days before Survey Day, the roster was updated to reflect transfer students (in and out of selected schools). Transfer-ins were sampled with the same probabilities as students who were included in the initial sampling in that particular school, so that the within-school weights of initially selected students and selected transfer students would be the same.

Securing State/District/School Permission

Securing permission to conduct the study from school authorities at various levels (state, district, school) was a major task of the field test. This process was shaped by the fact that each individual school belonged to one of three school sectors, each with its own organizational structure: the public schools, the Catholic school system, and non-Catholic private schools.

For the public schools, permission was first sought at the level of Chief State School Officer. Upon approval, a State Coordinator was appointed. The Coordinator's role included three tasks:

- to maintain liaison between the project and the state's department of education, enabling project staff to keep the state informed of the progress of the field test

- to handle inquiries from district supervisors concerning state approval of the study

- to consult with project staff on those survey-related problems at the district or local school that might require resolution from the state's department of education

Next, permission was sought at the district level. Some problems were encountered with gaining district cooperation -- particularly in Dade County, Florida; Los Angeles County, California; and Harris County, Texas. Queens County, New York agreed to participate only after a long review process and after placing restrictions on the study. Six of the districts in the original sample refused to cooperate. The most common reason for refusal was heavy involvement in mandatory testing.

Once district approval was granted, school principals were approached. After some substitution of districts and schools to replace refusals, 38 public eighth-grade schools and 19 public high schools ultimately agreed to enter the NELS:88 sample.

For the private schools, both Catholic and non-Catholic, request for approval was initiated exclusively at the school level. Substantial difficulties were encountered in gaining approval in both types of private schools. Reasons for refusal included fear of parental disapproval of the study, excessive amount of testing in the school, unwillingness that children lose class time to non-curricular activities, and the perception that too much work would be involved for school personnel. After considerable substitution, six Catholic eighth-grade schools and five Catholic high schools were brought into the sample. Seven non-Catholic eighth-grade schools and two non-Catholic high schools became participants.

Securing Parental Permission

Implied versus explicit permission. Based on field test results, an issue of major significance for the base year is the form of parental permission a school requires for a child to participate in NELS:88. The field test demonstrated that use of "explicit consent"--that is, requiring a parent to return a permission form whether or not the parent approved of the child's participation in the study--was highly undesirable. Rather than providing a clear yes/no expression of parental wishes with regard to permission, use of explicit consent often resulted in considerable ambiguity as to the parents' decision. A great deal of expensive follow-up was directed to individuals who had never made an informed decision that their child should not participate in the field test. We believe these individuals would have been equally protected had implied consent--that which only required a parent to return a permission form when denying permission--- been used instead.

In both eighth-grade schools and high schools, in all three sector types, much effort was expended in tracking the explicit consent forms. In the high schools particularly, the proportion of eligible students participating in Survey Day was severely reduced because large numbers of explicit consent forms were not returned. Most School Coordinators interpreted non-return of form as equivalent to denial of consent; therefore students in such cases were unable to be surveyed.

Denial of permission for particular ethnicity groups in various school sectors. Another important field test finding related to permission denials concerns the comparative percentages of denial of the three ethnicity groups (Hispanic, Asian-Pacific Islander, Core) according to school sector (Public, Catholic, Other Private) in the eighth-grade cohort. There were minimal differences in denial rates for the three ethnicity groups for those students attending public and Catholic schools. However, both Hispanics and Asian-Pacific Islanders attending Other Private schools had considerably higher denial rates (10/43 or 23.3 percent and 3/14 or 21.4 percent) than did their Core counterparts (14/127 or 11 percent).

RECOMMENDATIONS:

(1) The State Coordinator should appoint a deputy who can assume the Coordinator's duties when the latter is unavailable.

(2) District contacting should be done early.

(3) Except in large districts, district superintendents should be told that NORC will assume consent to contact district schools unless NORC is informed otherwise within a stipulated number of days. In large districts, the district superintendent should be directly contacted to request granting of permission.

(4) The names of sampled schools should not be volunteered in the initial contact.

(5) In situations where districts wish to know which schools have been selected and wish to consult with the schools, NORC should send school-specific materials to the superintendent (to be forwarded on to the principal).

(6) When seeking school approval, telephone follow-up to the principal should occur within a few days of the principal's receipt of the initial contact letter.

(7) A copy of the implied consent form should be sent to the principal with the directive that if the principal objects to use of that form, he or she should contact NORC. (This recommendation is in response to the fact that many principals chose to use explicit consent without realizing how hard the tracking would be.)

(8) In those schools that demand explicit consent, School Coordinators should be asked to do the permission tracking. In such cases, parents should mail forms to the school rather than to NORC.

(9) Additional contacting materials (containing, for example, reference to the school's uniqueness in the sample) should be developed to help gain cooperation from religious schools, particularly non-Catholic schools. The latter are often

suspicious of federal studies and have no centralized authority to help in the persuasion effort.

CHAPTER TWO: FIELD TEST STUDENT DATA COLLECTION

The second chapter of the Field Test Report addresses the field test student data collection. First, student completion rates are examined. Then attention is given to assessment of the data collection procedures. These encompass the recruiting and training of data collectors, as well as the procedures for conducting the orientation, survey, and make-up sessions.

Student Completion Rates

Overall completion rates: eighth grade. For all eligible eighth-grade students, the completion rate on the Student Survey was 92 percent. By OBEMLA grouping, 89.9 percent of the Asian-Pacific Islanders, 90.7 percent of the Hispanics, and 92.5 percent of the Core students participated in the survey. By school sector, 97.7 percent of the Catholic school students, 84.2 percent of the Other Private school students, and 92.5 percent of the Public school students were surveyed.

Impact of Orientation Days on response rates. An Orientation Day (O-Day) was held in 17 of the 51 eighth-grade schools. An issue under examination in the field test was whether orientation sessions would have a positive impact on student participation rates.

Overall completion rates: O-Day versus No O-Day. Of 999 eighth grade students attending schools that did not have an O-Day and 531 eighth-grade students attending schools that had an O-Day, a small difference was found in rates of survey participation. In particular, 911 No O-Day cases were completed (91.2 percent), while 497 O-Day cases were registered (93.6 percent).

Completion rates of OBEMLA groups: O-Day versus No O-Day. Very little difference was found among completion rates of the three OBEMLA groups (Hispanic, Asian/Pacific Islander, and Core) when comparison was made of students attending No O-Day schools and O-Day schools. For each of the groups, approximately two percent more students were surveyed in schools that had orientation sessions than in those that did not.

Completion rates of school sectors: O-Day versus No O-day. In looking at the effect of orientation sessions, we also compared completion rates of students in the various school sectors. Here the differences between the O-Day and No O-Day cases were more diverse.

Of 170 eligible students attending Catholic schools, 116 of 117 (99.1 percent) attending schools having no O-Day were surveyed, while 54 of 57 (94.7 percent) attending schools having an O-Day were surveyed.

The greatest difference was found in the Other Private population. Of 155 eligible students attending Other Private schools, 111 of 138 (80.4 percent) attending schools having no O-Day were surveyed, while 44 of 46 (95.7 percent) attending schools having an O-Day were surveyed.

The smallest difference was found for public schools. Of 1,083 eligible students attending public schools, 684 of 744 (91.9 percent) attending schools not having O-Days were surveyed, while 399 of 420 (93.2 percent) attending schools having O-Days were surveyed.

Completion rates by geographic regions: O-Day versus No O-Day. Finally, it is of interest to compare eighth-grade completion rates of the various geographic regions represented in the field test. These were as follows: California (89.4 percent), Florida (94.4 percent), Illinois (94.3 percent), New York City (86.5 percent), New York State excluding New York City (95.6 percent), and Texas (91.5 percent).

The response in New York City was much higher than had been expected. All three schools involved were required by the New York City Board of Education to use explicit consent. It is important to note that the School Coordinators of all three schools made strong efforts to track parental permission. Therefore the results recorded may give an overly sanguine picture of what we should expect in the base year.

An average of 26 students attended each Survey Day conducted in an eighth-grade school. In only 14 schools (27 percent) was a Make-Up Day required. This result was better than expected.

Data Collection

Performance of field personnel. Turning next to the field-test data collection, we first consider the performance of field personnel who, in addition to carrying out various preliminary procedures, conducted the orientation sessions and survey administrations. Professional highly trained NORC interviewers called Team Leaders worked together with Clerical Assistants, minimally trained nonprofessional helpers who were often friends or relatives of the Team Leaders.

Debriefing of a subsample of the School Coordinators indicated that Team Leaders performed their assigned tasks well. According to those School Coordinators who actually attended the survey administration, the Team Leader involved with their school did a "great" or "good" job of introducing the study in 86.7 percent of the cases. The "great" or "good" ratings were given 81.8 percent of the time for Enthusiasm, 71.4 percent of the time for Keeping Students Interested, 75 percent of the time for Providing Explanations, and 87.5 percent of the time for Communicating With the School Coordinator.

Use of the Clerical Assistant was an experiment of the field test. The main responsibility of the Clerical Assistant was to do the critical item edit. At issue were the ability of Team Leaders to hire their Clerical Assistants in consultation with their field managers, the possibility of locating suitable candidates for the Clerical Assistant position, the level of monetary inducement necessary to secure qualified personnel, and the quality of in-school edit a Clerical Assistant would perform. Only in New York City did Team Leaders encounter difficulty in hiring and keeping Clerical Assistants. In general. the Clerical Assistants hired were responsible in maintaining confidentiality and did a good job (this was assessed in a later edit check) in performing the critical item edit. The daily stipend of fifty dollars was apparently sufficient to attract an appropriate candidate.

Implementation of Survey Days. Generally Survey Days went smoothly. Nevertheless, certain problems were discovered that will be corrected for the base year. Team Leaders described the survey scripts as too long and too repetitive in their assurance of confidentiality. There was some difficulty in fitting all survey activities within the limited time frame, particularly if the survey session had to begin late for any reason. The critical-item edit in particular took more time than had been anticipated. Missing items were retrieved following the administration of the Cognitive Test Battery. If the session ran long, there was danger that not all of the needed retrieval would be done. The mid-session snack, while extremely popular with the respondents, did sometimes delay the beginning of the cognitive-test administration since it took the students a while to settle down after the break. Such time allocation problems can be solved by making sure that students arrive on time for the survey administration.

Implementation of Make-Up Days. Make-Up Days were held in only fourteen of the fifty-one eighth-grade schools, and in only six cases did Team Leaders actually return to the school for the administration. In all other instances the School Coordinator administered the questionnaire and Cognitive Test Battery, using instructions given by the Team Leader. To assure confidentiality, the School Coordinator did not perform a critical item edit and retrieval of missing items.

Implementation of Orientation Days. While Orientation Days were scheduled in a sample of twenty eighth-grade schools, because of scheduling difficulties, they were in fact only held in seventeen schools.

Two types of orientation sessions were provided, one to which only selected students were invited, another to which teachers and parents were also invited. Five of the twenty schools originally designated to have an orientation session were invited to have the multi-audience Orientation Day, but only two schools accepted the invitation. Collectively, only one teacher attended the multi-audience Orientation Days. Therefore, lack of school, parent, and teacher interest meant that no true test of possible effects of this experimental version of an orientation session was accomplished.

As noted, the effect on student participation of having an orientation session was only marginally positive in most schools. However, Orientation Days, which generally went very well, did serve a number of important functions. Student schedules were collected, which proved extremely helpful for locating students on Survey Day, especially in the larger schools. Team Leaders were given an opportunity to learn about the school environment, meet school personnel and reinforce the commitment of principals and school coordinators, review with the School Coordinator the procedures for Survey Day, assess the adequacy of the facilities, and verify the arrival of NORC materials. In a number of schools, the Orientation Day resulted in conversions on denial of parental permission.

The schools were surprisingly receptive to having an Orientation Day. Of 44 School Coordinators who were asked if they would be willing to have an Orientation Day if requested, 30 responded affirmatively.

RECOMMENDATIONS:

(1) Serious consideration should be given to having Orientation Days in all eighth-grade schools in the base year. Should this not prove feasible, Orientation Days should at least be planned for those schools that might be problematic. Such schools include all that require explicit consent, large inner-city schools, and many of the non-Catholic private schools.

(2) Clerical Assistants should be used. However, their training should be expanded.

(3) Procedures should be revised to ensure that all required activities can be completed on time. Scripts used by the Team Leader should be shortened. Special efforts should be made to ensure that all students arrive at the test site on time.

(4) The optimal means of transporting survey materials to and from the schools should be evaluated. During the field test, when U.S. Postal Service First Class service was used for returning completed questionnaires and tests, two of approximately eighty boxes were lost in the mail. In addition, there were long delays, particularly in mailings to and from California.

CHAPTER THREE: ANALYSIS OF FIELD TEST RESULTS

Sampling

Two issues concerning the student sampling were of particular interest for the field-test analysis: the quality of sample updating and the quality of annotation of student rosters for OBEMLA status and eligibility.

Sample updating. The sample updating, performed at first by central office staff and later by Team Leaders, involved calling School Coordinators of eighth-grade schools ten days before Survey Day to acquire a list of students who had transferred in and transferred out since the original school roster had been prepared. School Coordinators were asked to use a given set of codes to classify the transfer-ins for eligibility and ethnicity. The procedure was intended to assure all eighth-graders in a given school an equal probability of being chosen for the NELS:88 sample. Transfer-in students were sequentially numbered and selected for inclusion in the sample based on the same set of computer generated random numbers used to select the original sample of 32 students.

The sample updating procedure assumed that there would be a rough symmetry, for the sample as a whole, regarding the number of transfer-ins and transfer-outs. The ratio of 11 selected transfer-ins to 65 selected transfer-outs clearly contradicts this assumption. There are two probable reasons for this. In many cases the original rosters had not been carefully reviewed; several of the students selected for the sample had in fact transferred out before the original roster was prepared. Perhaps of greater importance, many School Coordinators had been unable to provide full lists of transfer-ins. Particularly in schools that used a computerized record-keeping system, the specific date that a student had transferred into the school was not a matter of record. A great deal of manual checking of lengthy lists would often have been necessary to produce the desired information. Therefore there was probably substantial undercounting of transfer-ins. Such inaccurate updating of rosters implies that sampling of transfer-ins was done using an inadequate pool of new students. Given the sampling updating procedure, too few additional students were brought into the sample.

Quality of annotation of the student rosters. In general, School Coordinators undercounted the OBEMLA-oversample eighth-graders in their schools. Particularly in large schools, where the School Coordinator did not know all of the eighth-grade students, the quality of ethnic coding often depended on the existence of school records that contained the particular ethnic identities. Since ethnic groupings were differently defined across schools, even well-prepared records did not guarantee relevant information. In some schools, homeroom teachers were asked to do the classification. In other schools, the School Coordinator apparently identified the students' ethnicities largely on the basis of last names. This matter was further complicated by the fact that in some districts policy prohibited keeping any records classifying students by ethnic origin.

Some degree of inaccuracy--particularly undercounting--was therefore to be expected. But comparison of roster designation with the student's self-report of AREA OF THE WORLD ANCESTORS LIVED BEFORE COMING TO AMERICA suggests that such undercounting was substantial. Underidentification of Mexican-Americans and Puerto Ricans was especially severe. Even after considering that the students may not have accurately responded to the ethnicity question--specifically excluding cases in which students wrote in non-Hispanic or non-Asian countries in Other Hispanic or Other Asian category choices--the proportion of underreporting still remains at one-fourth of the total for Hispanics, and much higher for certain Asian groups, particularly Japanese and Pacific-Islanders.

RECOMMENDATIONS:

(1) Schools likely to have difficulty annotating student questionnaires should be preidentified. Special efforts should be made to involve teachers in the review of annotated rosters.

(2) School Coordinators should be asked to keep track of the names of students who transfer in from the date that the original roster is annotated to the date that the sample updating is requested.

Data Analysis of the Student Questionnaire

The data analysis of the Student Questionnaire has seven components: analysis of critical item editing and retrieval; analysis of item non-response; analysis of inter-item consistency and logical consistency of responses to filter and dependent questions; analysis of response variation by position in questionnaire; analysis of cross validation (student versus parent reports); analysis of scale reliabilities; and analysis of item response variation by selected student classification variables. A brief summary of the results of each analysis follows.

Analysis of critical item editing and retrieval. Twenty-one questions in the Student Questionnaire were designated as critical items for the field test. Questions were designated critical items on the basis of their centrality to the policy concerns of NELS:88 and to the follow-up activities in 1990, their analytic importance, and the questionable ability of students to answer particular questions. During the survey administration, while the eighth-graders were completing the Cognitive Test Battery, Clerical Assistants performed an on-the-spot edit of answers to the critical item questions. Team Leaders sought retrieval on inadequately answered critical items. Later, an in-house edit was conducted to evaluate the editing performance of the Clerical Assistants. Editors were asked to identify two types of error: Type A (an error with adverse effect on data quality) and Type B (an error with no effect on data quality.) Both retrieval rates and error rates informed the analysis of critical item response.

Of single data element questions, four questions appeared as particularly problematic:

(1) L13 KIND OF HIGH SCHOOL RESPONDENT EXPECTS TO ATTEND

(2) L21 LANGUAGE PEOPLE IN RESPONDENT'S HOME USUALLY SPEAK

(3) Q1 ANCESTRAL DESCENT OF RESPONDENT (HISPANIC OR ASIAN/PACIFIC ISLANDER OR NEITHER HISPANIC NOR ASIAN/PACIFIC ISLANDER)

(4) Q44 RESPONDENT'S COURSES FOR THIS ACADEMIC YEAR

Of multiple data element questions, five questions registered relatively high retrieval rates and three of these also registered relatively high error rates:

(1) L1 STUDENT'S NAME, ADDRESS, AND TELEPHONE NUMBER
(Apartment numbers, zip codes and area codes were responsible for a considerable amount of the retrieval.)

(2) L3 MOTHER's OR FEMALE GUARDIAN'S ADDRESS AND TELEPHONE NUMBER IF DIFFERENT FROM RESPONDENT'S
(Some children apparently had trouble following a skip pattern embedded in the question; others did not know all of the information.)

(3) L5 FATHER'S OR MALE GUARDIAN'S ADDRESS AND TELEPHONE NUMBER IF DIFFERENT FROM RESPONDENT'S
(The students often did not know the complete address of a father/male guardian who lived elsewhere.)

(4) L7 NAME, ADDRESS, AND TELEPHONE NUMBER OF FAMILY FRIEND OR RELATIVE (Very often Clerical Assistants did not mark this question group for retrieval. When retrieval was attempted, children typically did not have complete address information concerning family acquaintances.)

(5) Q9 SPECIAL PHYSICAL AND/OR MENTAL IMPAIRMENTS OF RESPONDENT
(This asked about special services students may have received owing to particular types of health conditions.)

Finally, one question, while not requiring substantial retrieval, did produce a particularly large number of errors. This question asked the students to classify their parents' occupations using a long list of job categories. It appears that the children did not know enough about their parents' occupations to be able to classify them. A considerable number of multiple responses were left unresolved.

The retrieval rate of all questions together was 1.12 retrievals per case. Five questions, those discussed in the previous paragraph, accounted for 54 percent of the retrievals. Given the high level of retrieval this implies, the Clerical Assistants generally gave an exemplary performance.

Analysis of item nonresponse. The second type of analysis that was performed on the NELS:88 student data was an item nonresponse analysis. Nonresponse included items the respondent refused to answer, did not know how to answer, answered with more than one response where only one response was called for, and failed to answer at all.

An item was selected for special analysis if it was a critical item and its nonresponse rate was equal to or greater than 5 percent; or it was not a critical item and its nonresponse rate was equal to or greater than 8 percent. The formula used to compute the response rate was:

$$\text{Response rate} = \frac{\text{number of valid responses + number of valid skips}}{\text{number of applicable respondents}}$$

Among the items that emerged as most problematic by this criterion were the following:

(1) L13 KIND OF HIGH SCHOOL RESPONDENT EXPECTS TO ATTEND

(2) Q13A OCCUPATION CATEGORY OF RESPONDENT'S FATHER

(3) Q13B OCCUPATION CATEGORY OF RESPONDENT'S MOTHER

(4) Q14A HIGHEST LEVEL OF EDUCATION RESPONDENT'S FATHER COMPLETED

(5) Q14B HIGHEST LEVEL OF EDUCATION RESPONDENT"S MOTHER COMPLETED

(6) Q27A HOW FAR IN SCHOOL RESPONDENT'S FATHER WANTS RESPONDENT TO GO

(7) Q27B HOW FAR IN SCHOOL RESPONDENT'S MOTHER WANTS RESPONDENT TO GO

(8) Q28 WHICH HIGH SCHOOL PROGRAMS RESPONDENT WILL ENROLL IN

(9) Q33 HAS RESPONDENT TAKEN TEST INDICATING APTITUDE?

(10) Q34 KIND OF WORK RESPONDENT WILL BE DOING AT AGE 30

(11) Q51D USEFULNESS OF SOCIAL STUDIES IN RESPONDENT'S FUTURE

(12) Q56D RESPONDENT'S ATTENDANCE IN HEAD START

(13) Q56E RESPONDENT'S ATTENDANCE In EXTENDED DAY CARE

[NOTE: The items listed above, a sample of the high nonresponse items, generally had nonresponse rates in excess of 20 percent.]

Overall, item nonresponse in the Main Questionnaire ranged from a high of 39 percent (Q56E, "Did you go to extended day care?") to lows of less than one percent on both behavioral and attitude questions (for example, Question 24 on cigarette smoking, and Question 25A, a self- esteem item), with an overall item nonresponse mean of 5.86 percent. When Don't Knows are excluded from the calculation, mean item nonresponse was 4.05 percent.

The Field Test Report considers item-by-item the possible reasons for high nonresponse along with recommendations for item wording or format improvement.

Analysis of inter-item consistency. There were several pairs of parallel items on both the Student and Parent Questionnaires. In each case questions with variant wording attempted to elicit the same information. Comparisons among a respondent's answers to such related questions (inter-item consistency checks) provide one important means of assessing the accuracy or quality of data for a given item. If such a comparison reveals a high degree of inconsistency, then both items must be closely scrutinized to see which is more conducive to accurate reporting -- or alternative and more effective ways of eliciting the intended information must be sought.

Inter-item consistency was analyzed on questions dealing with two subject matters, special education and orthopedic services. Comparisons were made between consistency of answers given by the students to a set of two questions on each of these topics. In addition, inter-item consistency checks were done on the responses provided by parents to essentially the same questions appearing in the Parent Questionnaire. Next, cross-validation was performed on pairs of student and parent responses on the four items. As a final check, for a sample of student-parent cases that had inconsistent answers, a telephone validation was conducted with the parents.

The results indicate that on this kind of item student reports are quite unreliable. Parent response was more consistent than student response. This suggests that questions dealing with the two subject matters should be placed in the Parent Questionnaire rather than in the Student Questionnaire in the base year.

Analysis of logical consistency of responses to filter and dependent questions. A major question posed in the field test was whether eighth-grade students would be able to deal with skip patterns employed in the survey instruments. Skips are used for conditional questions that require no answer if a preceding question (or "filter") has routed the respondent out of the question. Many of the issues under study in NELS:88 are targeted to specific populations, and under these conditions efficiency considerations make the use of skip formats highly desirable. Nevertheless, there are potential problems associated with skip formats. Respondents may skip a dependent question they should have answered or they may answer a question they should have skipped. They may inadvertently skip the first one or two nondependent questions after dependent questions they have rightfully skipped. Respondents may develop a habit of skipping questions. Questions having comparatively long context-establishing introductions may be skipped by a respondent sensitized to the legitimacy of skipping questions.

The experience of the field test suggests that eighth-grade students are able to deal with simple skip patterns. Over 64 percent of the students were able to complete the survey instruments without making a single skip pattern error, and 89.7 percent were able to complete the instruments without making errors that negatively affected data quality. Success in handling the skip patterns did not correlate with differences in socioeconomic status, nor was there a manifest bias against students with low self-reported grades. There was no correlation between skip pattern error and failure to complete the survey instruments; data quality on the last items in the questionnaire did not suffer because of the incidence of skip pattern error. Similarly, nondependent questions following dependent questions did not register inordinately high levels of nonresponse.

Analysis of response variation by position in questionnaire. The field test provided an opportunity to assess questionnaire length and its effect on data quality. One way to conduct such an investigation is to measure and evaluate the degree of degradation in response quality for the final questionnaire items. Response quality may be degraded in at least two different ways. First, questions positioned later in the questionnaire may simply remain unanswered by students who found the questionnaire too long. Second, the care and attention students give to items near the end of the questionnaire may decline; students may either skip some questions or answer questions hurriedly.

A group of closed-ended items at the beginning of the Student Questionnaire was compared to a group of closed-ended items at the end of the questionnaire. Percentage of illegitimate blanks (those not made in response to a valid skip) was the criterion used as the indicator for the first behavior described above. Nonresponse rate (figuring, besides blanks, also multiple responses and Don't Knows) was used to assess deterioration of attention.

The differences in the mean and median percentage of blanks and the median nonresponse rates for the two groups is small enough to conclude that data quality for the latter items is not appreciably affected by their placement at the conclusion of the survey instruments.

Cross-validation: student versus parent reports (socioeconomic status and early educational experience). Student-parent comparisons in fact appear in several sections of the field test report. In verification of ethnicity (OBEMLA sample status), parent-student ethnic reports are compared. In the section on inter-item consistency, parent-student handicap program reports are contrasted. In the section on student dispersal and tracking, student-parent expectations as to high school to be attended in 1990 are compared. We have supplemented these discussions by reporting on two classes of items -- SES indicators, and early school and pre-school programs -- that asked identical questions of parents and students.

Socioeconomic status has long been recognized as one of the most important predictors of educational outcomes and personal and social development. Because of the centrality of the SES variable to descriptive and analytic studies, it is extremely important that data quality support the construction of a reliable and valid SES measure. In order to gauge the quality of student SES responses, we compared student SES responses to parent SES responses.

For purposes of the comparison, we constructed an SES index from a standardized, equally weighted combination of father's education, mother's education, father's occupation, and mother's occupation. Income was omitted from consideration as there was no income question on the student questionnaire. "Household items" was omitted from consideration as there was no household items question on the parent questionnaire. (However, we also compared SES index results with student household items reports and parent income reports.) As a check on the accuracy of the SES index comparison, we also crosstabulated parent and student responses to the four data elements of the composite.

The results of the individual crosstabulations reveal substantial disagreement between parent and student responses: Some 393 of 775 parent cases could be matched with student cases on father's education. Of these, 41 percent disagreed. Of 420 of 775 matchable cases on mother's education, 43 percent disagreed. Similarly, 440 of 775 parent cases could be matched with student cases on father's occupation and 44 percent of these disagreed. Of 389 of 775 matchable cases on mother's occupation, 46 percent disagreed.

We calculated composite SES scores for both the parent and the student. Then, on the basis of the student SES distributions, we divided these scores into three groups, corresponding to high, medium and low SES. We then crosstabulated the three-group SES composites constructed from the parent and student data.

Overall, we found that parents confirmed student reports of low SES 77.7 percent of the time, that they confirmed student reports of middle SES 71.7 percent of the time, and corroborated student reports of high SES 60.6 percent of the time. Additionally, it should be noted that many of the student occupation and education data were missing. Moreover, examination of a subsample of student questionnaires that did have the relevant occupation data revealed that students' answers to open-ended questions asking the parents' occupations--which we ourselves coded--had a low level of agreement with the occupation codes chosen by the students. When we constructed SES out of alternative measures (the student-supplied household items data and the parent-supplied income data), we found that these had a better correlation with the parental SES composite than with the student SES composite.

In examining high nonresponse items on the student questionnaire, we found that the individual elements of the multiple question that asked about various very early instructional and pre-instructional programs the student might have attended often had problematic response rates. The parents were asked the same set of questions in the Parent Questionnaire. Comparison of those student-parent cases for which sets of answers were present revealed substantial disagreement between parents and students on these items. In particular, the students often marked the Don't Know response, while parents seldom used that answer. All in all, it appears that parents are better data sources for questions about early childhood instructional and pre-instructional programs than are eighth-graders.

Analysis of scale reliabilities. Two attitude scales, internal versus external locus of control and self-esteem, were incorporated into the Student Questionnaire. At issue was the reliability of these scales, that is, the ability of scale items collectively and alone to elicit consistent responses reflective of the particular attitude stances upon repeated asking of the questions.

The performance of these attitude items must be scrutinized especially closely. The two scales in their current form are importantly different from the comparable NLS-72/HS&B scales. Untested items have been added and items have been rewritten. Even without these changes, it would be necessary to examine the performance of these scales with eighth graders.

A statistical measure of reliability that is routinely applied to scales is Cronbach's alpha or coefficient alpha. Overall, the reliability coefficient alpha for the self-esteem scale was .82, and for the locus of control scale .60. For comparison purposes, the reliability coefficient alphas for the HS&B and NLS-72 scales were somewhat lower, .66 for the self-esteem composite and .56 for locus of control. One cannot, however, legitimately generalize to probable coefficient alphas for the two scales in the base year since the field-test sample was a small nonprobability sample. Even so, one can employ the item-to-total correlation to identify particular items that either add minimally to the reliability of the scale or actually detract from the reliability. The Field Test Report identifies several such items.

Analysis of incidence of item nonresponse by selected respondent characteristics. Pronounced variations in nonresponse that correlate with common or defining features of groups have possible implications for the evaluation and revision of the student questionnaire. For this reason, crosstabulations were made of item responses on eleven questions (ten of which had high nonresponse) with a variety of standard student classification variables. The questions examined addressed the student's future school program, parental contact with the school, parental aspirations for the student's education, aptitude testing of the student, and the student's pre-first grade school experience. The classification variables included School Sector, Sex, Race, Ethnicity, Academic Track, Grades, SES (student scale), SES (parent scale), Urbanicity, and Pattern of Early Language Acquisition.

Judging from selected high nonresponse items, it appears that respondent characteristics did not have a strong and pervasive effect on item performance in the field test student questionnaire. However, for many of the high nonresponse items in which statistically significant differences were observed among groups (notably Academic Track, Grades, and Race groups), all groups experienced some difficulty with answering the item (that is, one group did not generally answer the question well, while the others answered the question poorly). The differences observed often indicated that questions which create difficulty for all students might be more difficult for students in lower academic tracks or with lower grades than for students in higher academic tracks or with higher grades.

On the basis of this analysis of selected high nonresponse items, some question revisions are suggested while, in other cases, differences in student performance may point to differences in knowledge and experience of the different groups.

RECOMMENDATIONS:

(1) Wherever feasible, eighth-grade students should not be asked to provide information that is more accurately provided by another NELS:88 respondent. In particular, eighth-graders should not be asked to classify parental occupation, assess their participation in pre-first grade educational programs or programs

for treatment of physical or mental handicaps, or classify their parents' level of education. (Consideration might be given to having students fill in an open-ended question asking the parental occupation since, in the field test, the students were fairly successful in answering such a question.)

(2) Instructions must be made clear to students (for example, routing arrows should be provided), but sequences of questions requiring skip patterns should be retained.

(3) Items in the Student Questionnaire should be appropriately revised if analysis suggests that high nonresponse involving the item has occurred because of weakness in format, question order, wording, questionnaire instructions, or other difficulties.

Analysis of Field Test Results on the Cognitive Test Battery

The Educational Testing Service (ETS) is constructing the Cognitive Test Battery of NELS:88 to assess the extent and correlates of cognitive growth in reading, mathematics, science, and social studies as students move from grade eight to grade twelve. A secondary purpose of the NELS:88 Test Battery is to provide a common scale such that comparable HS&B cohorts can be compared on a cross-sectional basis with the NELS:88 cohort in the area of mathematics and possibly reading.

Two field test forms were constructed--Form A and Form B. Form A included 50 items for the reading test and 42 items for the Science test. Form B included 82 items for the Mathematics test and 60 items for the Social Studies test. Approximately half of the NELS:88 field test students in each of three grade levels--eighth, tenth, and twelfth --received Form A, while the other half received Form B.

In the NELS:88 base year, only approximately 85 minutes will be available for the cognitive testing. Given these limitations, four relatively short tests were constructed from the field test item pool. A preliminary choice of 20 reading items, 40 mathematics items, 30 social studies items, and 25 science items have been selected. Selection criteria include apparent difficulty of the item (as measured by overall correct-response rate); contribution to reliability of the particular academic area scale; presence in a cluster of items representing one specific step in a skill-level hierarchy; and success of item in measuring change (as measured by divergence of means of correct responses at the three grade levels).

Small contrasts of mean scores across tenth and twelfth grades indicated that for two of the four subject matters--mathematics and reading-- two test forms should be provided, one for eighth and tenth graders and another for twelfth graders. That is, questions demonstrating a higher skill level should be placed in the twelfth-grade questionnaire to better distinguish cognitive growth between the tenth and twelfth grades. The social studies test did show sufficient difference in means for the three grades. In addition, no floor or ceiling effects were present: that is, means for eighth-graders were not particularly low and means for twelfth-graders were not excessively high. On this basis, it has been decided to have a single form of the social studies test for all grade levels. Test results on the science test were inconclusive. While it initially appears that a single version of the science test for all grade levels may be appropriate, further investigation is indicated before the decision is made concerning the final form(s).

Finally, it should be reported that, in spite of being relatively short, the preliminary forms of the Reading, Mathematics, and Social Studies tests exhibited quite good reliabilities. The reliabilities of the NELS Reading and Mathematics tests compare favorably with those achieved on similar tests used in HS&B. Any comparison of reliability between the HS&B and NELS Social Studies tests is suspect as the two sets of tests differ greatly with respect to numbers of items included.

CHAPTER FOUR: THE PARENT SURVEY

Data Collection of the Parent Survey

Sampling. Thirty-four of the 51 eighth-grade schools were selected to participate in the field test of the NELS:88 Parent Survey. To assure adequate representation of private schools, all sampled private eighth-grade schools were designated to have the parent study. Schools located in areas with heavy student survey activity comprised the balance of the parent sample institutions. One parent/guardian of each of the selected eighth-grade students in the 34 schools was made a respondent in the study.

Delivery of Parent Questionnaires. All parents received the Parent Questionnaire in a packet that also contained a letter introducing the study to the parent and a postage-paid envelope for return of the questionnaire to NORC. Three different methods were used to deliver the questionnaires to parents: Student Take Home, School Mail, and Central Office Mail. An important experiment of the field test was to test the relative effectiveness of the Take Home and Mail treatments according to the following criteria:

- degree of remailing required

- short-term and longer-term parent response rates

- quantity and quality of response to selected critical items.

Student Take Home--the method that had students carrying the questionnaires home to their parents on the day that the students themselves were surveyed--emerged as a superior method for maximizing parent participation.

Criterion 1: degree of mailing required. Regarding the first of the three criteria, remailings made, Student Take Home showed 34 of 397 (8.6 percent) remailings, while School Mail showed 15 of 156 (9.6 percent) and Central Office Mail showed 26 of 244 (10.7 percent). This evaluation encompasses a subset of total parent cases, specifically those in which students were surveyed and no particular complications in parent questionnaire delivery were encountered.

Criterion 2: short-term and long-term response rates. With regard to the second criterion, early and late participation rates, Student Take Home consistently emerged as more effective than Central Office Mail. (School Mail was used in only five schools. It was used when the school refused to provide parent address information that was necessary for the Central Office Mail treatment.)

At three weeks, the time at which telephone prompting of outstanding questionnaires was scheduled to begin, 53.3 percent of the Student Take Home questionnaires and 47.7 percent of the Central Office Mail questionnaires were in house. (This analysis encompasses the same set of cases examined in the remailing analysis.)

By May 10th, the cut-off date for data entry of questionnaires, a total of 775 questionnaires were processed. Considering all parents of children eligible to participate in the Student Survey, 363 of 440 (82.5 percent) of Student Take Home parents had completed parent questionnaires, while 279 of 402 (69.4 percent) of Central Office Mail parents had participated in the Parent Survey. Completion rates were then figured using a second formula, which considered a base of only parents of children who had actually participated in Survey Day. This calculation was of interest since parents of children who had not participated in the Student Survey were not subject to Central Office and field follow-up on unreturned questionnaires. Here 365 of 415 (88 percent) of Student Take Home questionnaires were in, while 274 of 363 (75.5 percent) of Central Office Mail questionnaires had been received.

Criterion 3: Quality and Quantity of Information Provided. By the third criterion, quality and quantity of information provided, Student Take Home again emerged as distinctly superior. The first 609 parent questionnaires that arrived in house were subject to retrieval on critical items. Telephone calls were made to parents if inadequate answers were provided to selected important items on the questionnaire.

Two of the most personal critical items addressed locator information on the parent respondent (name, address, and telephone number) and the amount of the family's annual income. These two questions were chosen as the quality/quantity indicator for three reasons:

- the questions represent two different types of sensitivity
- both questions had high retrieval rates
- it seemed plausible that respondents could vary in their willingness to respond to these questions according to the manner in which they received a parent questionnaire.

Of 296 Student Take Home cases considered, 18 (6.2 percent) initially did not provide Respondent Locator Information and 34 (11.5 percent) did not provide Family Income Information. Of 177 Central Office Mail cases considered, 20 (11.3 percent) initially did not provide Respondent Locator Information and 41 (23.2 percent) did not provide Family Income Information.

Completion Rates for the Parent Survey

Overall completion rates. Given the very short time span of the Parent Survey--approximately three and a half months with students surveys being staggered over the first two months--the parent participation rates achieved were encouraging. A subsample of the Parent Survey schools, generally those that had Survey Days in the first six weeks of the field period, were subject to a full menu of follow-up efforts as needed: a thank you/reminder postcard, a telephone prompt call, a telephone interview attempt, and a personal interview attempt. For the 18 schools that were subject to the full follow-up treatment, the final participation rate for those parents whose children were eligible to participate in the Student Survey was 476/562 or 84.7 percent. The final participation rate for these same 18 schools using parents of surveyed eighth-graders as the base was 476/517 or 92.1 percent. When one considers the full sample, including schools that had minimal follow-up (in particular, schools with Survey Days in the final weeks of the Student Survey period and New York City public schools where no telephone or personal follow-up was allowed), the Eligible Student base parent participation rate was 780/999 or 78.1 percent, while the Surveyed Student base parent participation rate was 770/922 or 83.5 percent.

Specific Completion Rates. While overall the rate of participation in the Parent Survey was strong, for some specific groups the extent of participation was relatively weak. Comparisons were made of parent participation using these groupings: Ethnicity (OBEMLA status); School Sector (Public, Catholic, Other Private); and Permission Type Required (Explicit, Implied).

Participation rates: Ethnicity. The findings on the ethnicity comparison were gratifying in that they do not confirm our fear that the Hispanic and Asian/Pacific Islander parents would register low participation due to language barriers or cultural characteristics. Nor do they lend support to the view that the study's aims could be harmed by failing to provide a Spanish-language edition of the Parent Questionnaire in the base year. Under the Eligible Student calculation, Hispanics reached 81.7 percent participation (152/186), while Asian/Pacific Islanders reached 77.2 percent (61/79) and the Core group reached 76.5 percent (562/735). Under the Surveyed Student calculation, Hispanics reached 90 percent completion, while Asian/Pacific Islanders and the Core group respectively reached 84.7 percent and 80.1 percent.

Participation rates: School Sector. Participation rates of parents of children who respectively attended Catholic, Other Private, and Public schools differed dramatically. Under the Eligible Student calculation, 90.2 percent (157/174) of the Catholic school parents, 62.5 percent (95/152) of the Other Private school parents, and 77.6 (522/673) percent of the Public school parents participated in the Parent Survey. Considering Surveyed Student parents, 91.8 percent (156/170) of Catholic school parents, 67.6 percent (94/139) of Other Private school parents, and 83.6 percent 514/615) of Public school parents completed questionnaires. This result suggests that special attention needs to be given in the base year to convincing parents of children who attend non-Catholic private schools of their importance to NELS:88.

Participation rates: Permission Type. Throughout the Student Survey, use of explicit parental consent for student participation in NELS:88 proved costly both in terms of student participation and personnel effort. From the results obtained in comparing parent completion rates of schools that required respectively explicit and implied consent, it would seem that weak parent participation is also correlated with school's use of explicit consent. Under the Eligible Student calculation, 70.8 percent (208/295) of the Explicit Consent parents and 81.1 percent (522/644) of the Implied Consent parents completed the Parent Survey. Under the Surveyed Student calculation, 78.5 percent (208/265) of the Explicit Consent parents and 85.3 percent (512/600) of the Implied Consent parents were surveyed.

Participation rates: New York City Public Schools. The New York City public schools posed a particular challenge for the NELS:88 Parent Survey. The New York City Board of Education imposed several restrictions on how the Parent Survey could be conducted in its three schools:

- NORC was not permitted to seek telephone contact with the students' parents in order to prompt return of questionnaires.

- No telephone or personal interviewing was allowed except at the request of the parent.

- However, NORC was given permission to carry out any type of reasonable written follow-up.

Initial response from the New York City parents was very weak. Consequently, a remailing was done on all outstanding cases. A new copy of the questionnaire, the original parent letter, a special written prompt letter, and a postage-paid return envelope were sent to the best possible address that was available for the student. Investigation had revealed that the parent addresses that the New York City Board of Education had provided to NORC often differed substantially from those the students cited in the locator pages of the Student Questionnaire. The new parent packets were mailed to the address the student provided when such discrepancies existed. Nevertheless, some seven weeks after the last school's Survey Date, only one of the three schools had a higher than 50 percent Eligible Student completion rate (54.8 percent) or Students Surveyed completion rate (58.6 percent). This result strongly supports a need for easing of restrictions for the base year.

Implementation of the Parent Survey. In general, the Parent Survey proceeded smoothly. Many efficiencies were found in having the retrieval and prompting work done at the NORC central office, not least of which was the rapidity with which updating of questionnaire status could be accomplished. However, comparison of interviewing accomplishments of central office telephone interviewers and field personal interviewers suggest that both telephone interviewing and personal interviewing might best be done by the field interviewers in the base year. While the average quality of the interviews obtained was approximately equal for the two interviewer groups, field interviewers seemed particularly adept at obtaining interviews. Too, they often were successful in locating respondents who had no telephones.

RECOMMENDATIONS:

(1) To the greatest extent possible, Parent Questionnaires should be delivered to parents by the sample eighth-graders, rather than by mail.

(2) For the Parent Questionnaire Follow-Up, serious consideration should be given to having NORC central office interviewers conduct only the retrieval and telephone prompting functions. Field interviewers would then do both the telephone and personal interviewing.

(3) It should be decided whether a telephone-interview version of the Parent Questionnaire is desirable.

(4) Efforts should be made to enhance participation rates of parents whose children attend Other Private schools and New York City public schools. For example, in the former case, appeals should be made with reference to uniqueness of the school type in the NELS sample. In the latter case, multi-language contacting materials should be provided.

(5) Requests should be made to the New York City Board of Education to ease restrictions concerning permitted means of conducting Parent Questionnaire follow-up in New York City public schools.

Analysis of the Parent Questionnaire

The primary purpose of the Parent Questionnaire was to collect information from parents that they are in the best position to provide about factors that influence educational attainment and participation. Such information includes family structure and background; and parents attitudes toward, aspirations concerning, and participation in the schooling of the targeted child. The questionnaire also collected information that would enable follow-up in future years.

Since a guiding philosophy in the development of all the NELS:88 questionnaires was to obtain information from the most closely associated and accurate sources rather than asking for information from a secondary and potentially less accurate source, the important family income question was placed on the Parent Questionnaire. This question is also highly sensitive--but perhaps is made less sensitive when placed in the context of educational financial planning items, which point to the clear relevance for research purposes of the income item. Other important but sensitive questions--such as religious affiliation--were also placed in the Parent Questionnaire.

As is the case for the Teacher and School Questionnaires, the object of the Parent Questionnaire is to collect reliable and valid data to be used primarily in the analysis of student behaviors and outcomes, and only secondarily as a data set by itself. To fulfill this purpose, one parent (or guardian) of each selected eighth-grade student in the base year will be recruited to participate in the study. In the field test, cover letters and other printed materials directed the Parent Questionnaire to the parent or guardian who knows most about the student's educational activities and home educational support system.

The intended response burden of the field test instrument was 40 minutes. From the pool of items tested in the field test, a selection of the most important of these items will form the basis for a questionnaire of approximately 30 minutes length in the base year.

Analysis of field test Parent Questionnaire data provides a basis for evaluating the parent instrument and the extent to which the data gathered will fulfill the purposes of the study design. Important findings include the following:

Overall response rates to critical items were acceptable. With few exceptions, at least 95 percent of the respondents provided the information requested and followed skip patterns correctly. Exceptions have been identified and form the basis of specific recommendations in the body of the report. The high nonresponse items asked for the respondent's educational expectations for the child, information about who (specifically) is home when the child returns from school, and information about family income. The nonresponse rate for income, though high, was not as high as expected. Although nonresponse was comparatively high for parental education, parent reports showed better response than student reports on the identical subject matter. Parents were also, not surprisingly, far better able to report parent occupations than were students.

Response was also variable to some parts of the request for locator information (the closer the relationship of the respondent to the individual on whom information is requested, the more likely it is that the information is provided) and the question about where the child is expected to attend high school--which, incidentally, was better answered by the eighth-graders.

Response rates to noncritical items were generally acceptable, with some exceptions. Recommendations are made in the full report about revisions to some of the items and elimination of others. Nonresponse on the sensitive religious preference item--which was not a critical item and hence was not retrieved--was low (below five percent.)

The overall high individual and item response rates and anecdotal evidence point to the fact that the approximately forty minute questionnaire was not perceived as burdensomely long. This is not surprising, given the salience of the topic--the child's educational experience--to most parents.

The instruction that the questionnaire be completed by the parent or guardian most familiar with the child's educational situation apparently caused no confusion among respondents. Nearly three-quarters of the time, the Parent Questionnaire was completed by the mother. The fact that it was completed by the father 18 percent of the time and by others (stepfathers, grandparents, other guardians) in the balance of instances points to a substantial minority of non-maternal respondents. This supports the notion that predesignation of the mother as respondent should not be preferred to the field test policy, which left choice of respondent open to the family's judgment as to who could best answer the questions.

CHAPTER FIVE: FIELD TEST RESULTS OF THE SCHOOL AND TEACHER SURVEYS

Introduction

The school principals of each of the 51 NELS:88 eighth-grade schools were asked to complete the NELS:88 School Questionnaire, while two teachers of each sample eighth-grader were requested to respond to the NELS:88 Teacher Questionnaire. The School Survey and the Teacher Survey were both designed and administered by Westat.

The primary purpose of the School Survey is to identify general descriptive information about each participating eighth-grade school regarding the school's student population, teaching staff, policies, program offerings, and overall educational climate as perceived by the school principal. Information obtained through the administration of the School Questionnaire is intended to assist in analyzing the learning environment and experiences of eighth grade students and to assist in distinguishing among different patterns of eighth grade schools and the effects of such patterns on the transition of students to the tenth grade and beyond.

The primary purpose of the Teacher Survey is to acquire an understanding of the effects of teaching on longitudinal student outcomes. The survey will link information regarding specific teacher characteristics and practices to information about the characteristics and outcome measures of the participating eighth-grade students. Thus, data are collected that address teacher qualifications, specific course activities, curriculum exposure, and student-specific characteristics as judged by teachers. The overall design of the Teacher Survey reflects the four curriculum areas targeted by the overall goals established for NELS:88. These areas are: mathematics, science, English, and social studies.

Completion Rates of the School Survey

In total, 51 school questionnaires were administered, and 46 completed questionnaires were returned, resulting in a 90 percent response rate. Of the remaining questionnaires, three principals (6 percent) refused to return the questionnaire, and two principals were categorized as nonrespondents.

Completion Rates of the Teacher Survey

A total of 302 teachers in the 51 participating Field Test schools were requested to respond to the teacher questionnaire. Of these, 284 returned completed questionnaires to Westat. Of the remainder, seven teachers (2 percent) refused to return the questionnaire; three teachers (1 percent) were categorized as nonrespondents; two teachers (1 percent) were no longer employed by the school; and six teachers (2 percent) were sampled in error. Thus, a response rate of 96 percent (284/302-6) was achieved.

Data Collection of the School and Teacher Surveys

In preparation for the two surveys, NORC sent the following to Westat:

- School File: this file on computer tape contained all information about the school, including ID number, name, address, Coordinator's name, and survey date

- Student File: this file, also on computer tape, contained the ID numbers and names of the sampled students

- Team Leader Information: this information included Team Leader names and addresses, and school assignments.

NORC sent to each School Coordinator a Class Schedule package. This included a Class Schedule form, a cover letter explaining the study and the importance of the form, instructions for filling out the form, and a roster of sampled students generated by NORC. The purpose of the form, which was to be filled out by the Coordinator, was to identify the teachers and classes to be included in the study. This information was used to produce the teacher labels and the list of each teacher's sampled classes. Two teachers of each child in specified subject matters--mathematics, science, English, or social studies--were targeted.

The Class Schedule package materials worked quite well, although some School Coordinators did call NORC to ask for clarification of instructions. In addition, Westat needed to contact several Coordinators to resolve questions about Class Schedule information. School Coordinators had particular difficulty in completing a column that asked for a "Class Number", a unique identifier for each class to be used for processing of data. Some difficulty was also encountered by School Coordinators when their school scheduled classes in unusual ways, for example, having a class taught at different times on different days.

Westat prepared unique school packets containing the required number of teacher and school questionnaires, related cover letters, and instructional materials for the return of the school packet to Westat. Packets were delivered to the school in one of two ways, depending on how close to Survey Day Westat received the completed Class Schedule. If the Class Schedule arrived at Westat at least two weeks before Survey Day, Westat mailed the packet directly to the school. In this case the Team Leader was expected to pick up the completed questionnaires on Survey Day. If the Class Schedule arrived at Westat less than two weeks before Survey Day, Westat sent the school packet to the Team Leader, who delivered it to the School Coordinator on Survey Day. During the Field Test, Westat found the first of the two methods superior, particularly in terms of the amount of follow-up that needed to be done on unreturned forms.

One substantial problem Westat encountered was the great amount of time it generally took a School Coordinator to return the school packet. Upon investigation, it was often discovered that the School Questionnaire was the cause of the delay. Apparently, the average length of time required by the principal to fill out the questionnaire was considerably longer than Westat had expected.

As noted above, the completion rate for the School Questionnaire was high. Moreover, none of the respondents refused to answer any of the questions and the Don't Know response was seldom used. The percentage of response to all items exceeded 90 percent following all follow-up efforts. Examination of answers given by respondents revealed minimal difficulty in correctly comprehending questionnaire items.

As with the School Questionnaire, substantial item nonresponse follow-up was required on the Teacher Questionnaire. Item nonresponse follow-up efforts were required for 225 questionnaires (74.5 percent). In part, this high percentage of follow-up was due to the amount of time needed to complete the questionnaire. Average time requirements reported by respondents exceeded Westat's targeted response time. A second factor that explains the high follow-up rate is discrepancy between a school's report that a student was assigned to a particular teacher's class and the teacher's report that the student was not so assigned.

Few of the teacher respondents used either the Don't Know or Refusal options. Examination of nonresponse patterns and of respondent answers on individual questions reveal a number of items that should either be eliminated or revised in the base-year version of the Teacher Questionnaire. Nevertheless, with very few exceptions, final response rates on individual questions exceeded 90 percent.

Generally, the main problem encountered in conducting the School and Teacher Surveys was having materials flow through the system in a timely manner. Westat would very much like to be able to mail the school packets to the schools well before Survey Day, so that the Team Leader can collect the completed questionnaires on Survey Day. Pre-survey activities of the base year will be designed to assure that this is possible.

A critical issue directly related to the above that remains to be resolved is whether or not to retain use of the Class Schedule in the base year. There could be considerable advantage to having teachers (rather than school principals or School Coordinators) provide information that identifies which teachers instruct which sampled students in which particular periods. For example, assuming that the teachers provided the information only when completing the Teacher Questionnaire, the information gathered would be the most current possible. If all teachers in the school who taught the two selected subject matters were surveyed (rather than a sample of teachers), Westat would be able to send the School Packets to the school without regard to particular selection of sample students.

RECOMMENDATIONS:

(1) Pre-survey procedures for the Teacher and School Surveys should be designed to assure that Westat is able to mail questionnaires directly to the schools well in advance of Survey Day.

(2) All teachers of eighth-graders who teach any of the two tested subject matters should be surveyed rather than a subsample of such teachers. This would eliminate the need for completion of a Class Schedule/Teacher Matrix.

CHAPTER SIX: OTHER FINDINGS

Two additional issues examined in the field test were the possibility of gathering selected student data from student records rather from questionnaire responses and the expected magnitude of student dispersion at the time of the first follow-up of NELS:88.

Records Availability

On the recommendation of the National Advisory Panel for NELS:88, NORC investigated whether several data elements could be more efficiently obtained from students' cumulative records than from alternative resources (such as parent, teacher, or student questionnaires). Efforts were made to collect information about students' schedules, their age and race, their handicapped status, limited English proficiency status, school meal program participation and Title I, Chapter-1 eligibility and participation from students' school records. An additional matter studied was the relative effectiveness of having School Coordinators or Team Leaders gather the information in the schools.

NORC questioned 24 of its 51 eighth-grade School Coordinators concerning accessibility to student records. The overall finding was that the kinds of records which NORC is considering obtaining in the base year are generally kept by the schools and are easily accessible by school staff (specifically the School Coordinator). However, it was also discovered that usually schools would not make their files and records directly available to NORC Team Leaders without prior permission having been obtained. Most commonly, explicit parental consent or district, state, or legal permission was required.

Admittedly, there are advantages to obtaining information from school records rather than from questionnaires completed by the various respondents. Not only would respondent burden be lessened, but also school records might be more accurate. However, there are also serious disadvantages to using the procedure. Ramified permission requirements could place a heavy burden on School Coordinators and principals, particularly if permission had to be obtained explicitly on an individual basis. More refusals at the school level might result as principals perceived an excessive burden. Furthermore, there is no guarantee that permission, whichever type is required, would ultimately be granted. For the individual explicit permission case, a certain number of refusals could be expected, resulting in a loss of data information. Finally, information gathered from a questionnaire would appear in a consistent form, while information from xeroxed records would not. While a School Coordinator could enter information on a specially designed form, this would be very time consuming as approximately 30 student cases would be involved. Having the NORC Team Leader gather materials might or might not lessen the work load for the School Coordinator since the Coordinator would typically then have to be further involved in permission acquisition. More stringent permission requirements would inevitably result in a higher degree of permission denial.

Student Dispersion and the First Follow-Up Survey

Anticipating the first follow-up of NELS:88, NORC drew upon field-test results to provide a prediction of the likely scatter patterns of NELS:88 students in 1990. Reports by students and parents as to which high schools the field-test eighth-graders were likely to attend, together with school principal estimates of where each school's eighth-graders would attend high school, were used to estimate dispersion by individual students between eighth and tenth grades. This information was used to determine the number of schools that would need to be approached in order to capture the largest percentage of students possible with a reasonable expenditure of time and money. The essential question being addressed was the following: How many tenth grade schools should one expect to include in the follow-up effort if one wants to capture at least 85 to 90 percent of the base year sample two years after the base year?

It was found that for most of the public high schools, large numbers of students will transfer as a fairly intact group from a common eighth grade school to a common high school. An exception is certain large urban schools, where students are presented with a greater array of high schools and where there are several magnet programs. A great deal of anticipated student dispersion was discovered for Other Private schools. An intermediate degree of dispersion was revealed for Catholic schools.

The analysis centered on determination of the optimal student cluster size to be pursued in follow-up efforts. A cluster is the number of students from a particular eighth grade school moving on in a group to the same high school.

The results of the Student Survey field test responses concerning anticipated high school attendance indicate that as one decreases the minimum cluster size to be followed up on, one gains increasing percentages of students up to a certain point. Then the curve flattens out, and one gets smaller additional percentages of students for each decrease in minimum cluster size. This phenomenon raises the issue of whether it is worth the tracking effort to capture those few students, for example, who are moving on to high school in clusters of only one or even two individuals. The key question is the following: How much does one add to the sample of base year students followed up on two years later if one decides to follow clusters of two students rather than of three students? This is the kind of issue which must be resolved.

Another central issue that needs to be resolved is whether the same minimum cluster size should be followed up on for all sectors of schools or whether the sample of private school students should be protected by setting a smaller minimum cluster size or even following up on all private school students. It is important to maintain the same proportional representation of Public, Catholic, and Other Private school students in the follow-up study that existed in the base year.

Essentially, examination of the field-test results indicates that, given the suggested dispersion patterns of Public, Catholic, and Other Private eighth-graders, setting a single minimum cluster size greater than two would not permit follow-up of even 85 percent of the base-year students. Using the two-person minimum cluster size would encompass approximately 89 percent of the field-test public school students (with 72 schools involved) and 88 percent of the field-test Catholic students (with 20 schools involved), but only 71 percent of the field-test Other Private students (with 23 schools involved). Were field-test Other Private students alternatively pursued in clusters of one, 95 percent of these students could be followed up (five percent could not be followed up for lack of high-school locating information). However, 60 schools would be involved. This illustrates the nature of the decision that must be made.

In sum, the issues that must be resolved are the following: What are the implications of trying to follow NELS:88 students in the most economical units as they disperse from 1988 to 1990? What kind of sampling plan is appropriate to those who fall out of this pattern? Should the answer to the latter question vary according to school sector, geographical area, or some other criteria?

CHAPTER SEVEN: SUMMARY AND CONCLUSIONS

The final chapter of the Field Test Report draws conclusions and summarizes principal findings concerning the adequacy of the field test design. The discussion centers on four features of that design: the sample plan; pre-survey activities; the design for data collection, and the data collection instruments. While much of the subject matter covered in the chapter has been incorporated into this summary, two issues are newly raised in the chapter. The first is the possibility that district-level, school-level, and even individual-level survey data might be provided to NELS:88 participants. The second is the advisability of employing foreign-language contacting materials or even questionnaires in the base year.

NELS:88 FIELD TEST REPORT: INTRODUCTION

This report examines the results of the Field Test of survey questionnaires, tests, forms, and procedures developed for use in the base year of the National Education Longitudinal Study of 1988 (NELS:88).

NELS:88 joins the National Longitudinal Study of the High School Class of 1972 (NLS-72) and High School and Beyond (HS&B) as the third in a series of longitudinal studies sponsored by the Center for Education Statistics of the U.S. Department of Education. These studies are designed to provide trend data about critical transitions experienced by young people as they develop, attend school, and embark on careers. NELS:88 focuses on a sample of students who will be enrolled in the eighth grade in 1988. Follow-up surveys at two-year intervals will be conducted to facilitate long-term trend analyses.

The general purposes of the field test are, in anticipation of the base year effort, to test instruments, forms and procedures; to experiment with different approaches to data collection; and to evaluate the overall study design.

The primary research instruments are a series of cognitive test batteries in four subject matter areas (English, Mathematics, Science and Social Studies), and questionnaires covering four respondent populations--students, parents, teachers, and school administrators. There are also three supplemental sections to the questionnaires: the Language Minority Supplement, funded by the Office of Bilingual Education and Minority Language Affairs; the Mathematics and Science Supplement, sponsored by the National Science Foundation; the Gifted and Talented Supplement, funded by the Office of Planning, Budget and Evaluation of the Department of Education.

The field test will be used to calibrate items so that reliable and valid base year versions of longitudinal tests can be developed. Item parameters were estimated for the eighth, tenth, and twelfth grades. Pretest data were evaluated, using both classical and Item Response Theory (IRT) techniques to determine which items are most appropriate for inclusion in final (base-year) forms for each test.

An item nonresponse analysis was the key element in the evaluation of the field test questionnaires. High nonresponse items were identified and the nonresponse interpreted so that needed revisions in items or in questionnaire format could be proposed. All skip patterns were checked by cross-tabulating filter and dependent questions.

In addition, differences in item performance related to respondent characteristics such as gender, ethnicity, or SES are presented and discussed in this report. Where appropriate, cross-validating comparisons of data taken from more than one respondent source (for example, certain items asked of both parents and students) are made. All analyses of aggregate response have been supplemented by the qualitative evaluations of NORC editors. More global issues, such as questionnaire length and respondent burden, have also been addressed.

Major data collection procedures to be evaluated in the field test included sampling and sample updating; state, district, and school contacting; data collection for all four respondent populations; and data preparation. The various documents used in these procedures also were to be tried and assessed. Both quantitative analyses (for example, comparison of response rate and error differences associated with different procedures) and qualitative analyses (including debriefings of field staff and school coordinators) will influence the evaluation of procedures and the formulation of recommendations for the base year.

There were several experiments in data collection methods. The two most important of these were an investigation of the effects of holding orientation days, and an experiment involving different means of distributing the parent questionnaire.

The field test report is divided into seven sections or chapters. The first chapter concerns field test preparation. This includes the design and development of the field test instruments, respondent selection, securing cooperation for the study, obtaining parental permission, and interviewer recruiting and training.

Chapter Two describes field test data collection in the schools and sketches the characteristics of the student sample, student response rates, and procedures for collecting student data.

Chapter Three is an analysis of the field test results for the student survey. The chapter discusses student sampling data, analyzes questionnaire data, proposes item and format revisions; it then addresses the student cognitive tests.

Chapter Four details data collection procedures and results for the parent survey. It contains a detailed item nonresponse analysis for the parent data and recommends revisions in the parent questionnaire.

Chapter Five presents the operational procedures, results, and item analyses for the teacher and school (administrator) questionnaires.

Chapter Six addresses other findings, specifically the accessibility of student records and the implications of field test results for plans to track students at the time of the NELS:88 first follow-up.

Chapter Seven contains a summary and conclusion, including an evaluation of the overall study design. It is followed by appendices that exhibit the various field test instruments and forms.

CHAPTER 1: FIELD TEST PREPARATION

1.1 Development of Field Test Instruments and Forms

Development of field test instruments and forms began with the contract award on February 4, 1986. After the initial project meeting between CES staff and key project staff of NORC and its subcontractors, efforts were initiated to identify suitable nominees for a National Advisory Panel (NAP) to give guidance on instrument development, design, and data collection issues. At the same time, work began on content outlines for all questionnaires and tests.

Questionnaire and test content outlines were submitted to CES March 21, 1986, and were discussed at the first National Advisory Panel meetings, held in Washington, D.C., April 1-2, 1986.

The student questionnaire outline stressed the priorities of NELS:88, particularly in collecting policy-relevant data on educational processes and outcomes. The first and overriding priority was described as the collection of student longitudinal data. Since the primary research objectives of NELS:88 are longitudinal, survey items were to be selected for their usefulness in predicting or explaining future outcomes as measured in later survey waves. The longitudinal purposes of the survey, it was emphasized, largely preclude items that seek detailed retrospective information to explain students' current status. The second priority was described as the procurement of valuable cross-sectional data, wherever that objective proved consistent with the longitudinal focus of the study.

The outline posited three major content domains for the student questionnaire: students' background and environmental factors; the individual students' experiences, beliefs, values and aspirations; and students' school experiences. An additional category of questionnaire items would seek locating information needed for successful follow-up of respondents in 1990. Special emphasis was given to the need for the development of a questionnaire that would not exceed forty to forty-five minutes in the field test; the need to determine, for each potential datum that it would be desirable to collect, whether the student represents a better source of information than the teacher, principal, or parent; and, finally, the need to tailor items to an eighth graders' level of understanding. Two other factors informed discussion of the content outline. One was the desirability of identifying and adapting the most successful--and suitable, given the characteristics of this age group--baseline measures from the earlier Department of Education longitudinal studies, in order to facilitate cross-cohort comparisons. The other was the need to integrate questionnaire development activities for NELS:88 with other CES studies, such that, for example, items from the National Assessment of Education Progress (NAEP) could be regarded as part of the item pool for NELS:88 quite as much as questions used on High School and Beyond (HS&B) and the National Longitudinal Study of the High School Class of 1972 (NLS-72). In the context of these considerations, the advisory panel considered the overall study design and the content outlines for the tests and questionnaires.

On the basis of the recommendations of the panel and further comments by Longitudinal Studies Branch staff, questionnaire outlines were revised and resubmitted to CES on May 6, 1986. A cover memo was prepared to provide guidelines to reviewers on the National Advisory Panel, in the various Department of Education policy offices (for example, the Office of Vocational and Adult Education, Office of Private Education, Office of Special Education, Office of Planning and Evaluation), and in external agencies concerned with educational policy and research. Reviewers were provided with a concise statement of the major research objectives of the study, and were asked to evaluate all proposed topic areas and to recommend priorities among them for use by CES, the NAP and NORC in reducing the questionnaires to manageable length. Written comments were requested to be returned to NORC by May 30 in order to be discussed at the second NAP meeting scheduled for June 10-11, 1986. In addition, discussions were held with Department of Education and National Science Foundation officials concerning the Gifted and Talented and the Mathematics and Science questionnaire supplements, and with the Office of Bilingual Education and Minority Language Affairs concerning the minority language instrument and student supplement. Two language minority conferences, attended by invited specialists in Hispanic and Asian-Pacific American educational policy issues, were held to help develop the minority language supplements. Meanwhile, actual items representing the topic areas of the content outlines were drafted.

The second National Advisory Panel meeting was held on June 10-11, 1986, in Washington, D.C. Most of the meeting time was devoted to reviewing the revised content outlines for the field test questionnaires. The major objective of the review was to ensure that draft field test questionnaires would cover topics deemed of highest priority for longitudinal policy research within the budgeted limits for questionnaire length and respondent burden. Panel members, CES staff, and contractor staff discussed each element in the content outlines in exhaustive detail. Based on these discussions, CES staff provided NORC and its subcontractors with specific guidelines for prioritizing topic areas in all questionnaires.

Draft questionnaires were submitted to CES between June 27 and July 2, 1986. A CES Interdivisional Review Committee met with Longitudinal Studies Branch staff during the week of July 7 - 11, and made additional recommendations for revisions. These recommendations were received by NORC on July 11. Over the following ten days, instrument development activities centered on the incorporation of these many helpful suggestions into the draft questionnaires. Revised questionnaires were submitted to CES on July 21, 1986.

Work also began in July on the FEDAC-OMB Clearance Package. This document contained a supporting statement for the study and incorporated justifications for the content areas to be addressed. It also presented final versions of the survey items. A first draft of the Clearance Package for NELS:88 Field Test instruments and forms was submitted to CES on August 12, 1986. After incorporation of FEDAC recommendations, the document was submitted to OMB on September 18, 1986. OMB recommendations were incorporated into the field test instruments and final clearance was received on December 8, 1986. The questionnaires were then formatted for printing.

1.2 Sample Design and Selection

1.2.1 Overview

The field test school sample was drawn in several stages. First, five states were selected on the basis of their importance to the success of the base-year study, their demographic heterogeneity, and their representation of a particular region of the United States. Two counties were selected within each state. Some 52 schools were then selected with probability proportional to eighth grade enrollment within a regular stratum (public schools) and a special (oversampled) private stratum. All eighth grade students within selected schools were then assigned to one of three sample statuses: core, Asian-Pacific, or Hispanic. Within each school, thirty-two eighth grade students were selected. Eligible students were randomly chosen, within each of the three statuses, using a separate sampling fraction for each so that Asian-Pacific and Hispanic ethnicities could be oversampled within each school.

High schools were chosen with consideration to their proximity to selected eighth grade schools. Sixty tenth and sixty twelfth grade students were randomly sampled from the eligible students in the selected high schools. Only a core sample was drawn in the high schools--that is, there was no oversampling of Hispanics or Asians-Pacific Islanders.

1.2.2 County Selection

Two counties per state were selected from each of the 5 field test states. The selection of two counties delimited the geographical area from which schools were chosen, thereby minimizing travel costs for the two or three survey teams assigned to that geographical area. Since population estimates are not desired for the field test, this cost-sensitive strategy was appropriate.

To ensure experience in all types of schools, two rural counties were selected--one from Illinois and the other from Texas.

While this was not a representative sample, all counties were selected using a probability function to guard against selection bias. In fact, all counties were selected with probability proportional to eighth grade enrollment according to the following procedures:

1. SPSS system files were constructed from the Quality Education Data (QED) tape. QED is a private firm that maintains an education database of schools. One SPSS system file was constructed for each of the five field test states.

2. The URBAN variable from the QED file was recoded to reflect three possible values at the school level: urban, rural, or unclassified. Essentially, the urban and suburban values were collapsed into one value that would now identify suburban schools as urban schools.

3. Next counties were categorized into rural or urban. In the case where a county was composed of both urban and rural schools, a category was chosen based on the status (i.e., urban or rural) of the majority of the schools within that particular county.

4. The files for each of the field test states were sorted by the URBAN variable and seven separate counties were selected. These seven counties are listed below by the urban/rural designation.

   2 urban counties in NY
   2 urban counties in FL
   2 urban counties in CA
   1 urban county in IL
   1 rural county in IL
   1 urban county in TX
   1 rural county in TX

5. These counties were selected with probability proportional to eighth grade enrollment according to the following specifications:

   N = # cases in the file
   n = # cases to be sampled
   cw_i = cumulative size of case i

   The county's FIPSCC (Federal Information Processing Standards County Code) and aggregate grade 8 size were listed. Then the cumulative size for case i was calculated.

$$cw_i = \quad w_j$$

such that,

$$cw_1 = w_1$$
$$cw_2 = w_1 + w_2$$
$$\vdots$$
$$cw_k = cw_{k-1} + w_k$$

The sampling interval (SI) was calculated by the algorithm

$$SI=cw_N/n$$

A random start (RS) was chosen such that $0< RS <= SI$. Random numbers were generated for each state's system file using the command COMPUTE QVAR=UNIFORM(SI) in SPSS/PC+. The first random number generated was selected for use.

Then cases were selected such that:

RS + 0*SI = cumulative sum to choose for #1
RS + 1*SI = cumulative sum to choose for #2 . . . etc.

1.2.3 Sample Size: Number of Schools and Students To Be Chosen

In reviewing the school data it was noted that the number of schools that contained tenth and twelfth grades as well as an eighth grade was very small. Therefore, a field administration strategy that focused on these types of schools to limit costs was not plausible. However, it was decided to sample eighth grade schools and then select high schools that were in close proximity to the eighth grade schools chosen.

The target student sample size was determined by the needs of test development. Given the large test item pool, two forms of the tests (Form A and Form B) were to be administered at each grade level, with each test item appearing on one of the two forms. In order to analyze variance in test scores and item response rates across grades, a total of between 1,200 and 1,500 test observations (600-750 per form) was desirable, and a minimum of 1,000 essential.

Fifty-two eighth grade schools were selected for the sample and 32 students within each school were randomly selected to participate in the survey. Sample size was held to 32 students so that the field test sampling and survey administration for eighth graders would approximate base-year conditions.

Thirty high schools were selected for participation in the study and 60 students were randomly selected within both the tenth and twelfth grades. Since the high school sampling did not need to approximate eighth grade base year conditions, this larger, more cost-efficient sample of up to 120 students per school was drawn.

This design specified that more high school students would initially be drawn than eighth graders, in order to compensate for sample attrition. Last-minute sample updating permits a chance for selection of students who transferred in after the initial roster has been drawn. In principle, selected transfer-ins should roughly compensate for the number of transfer-outs in the same period. Sample updating procedures would be instituted for eighth graders, as a trial of base year methods. Sample updates would not, however, be instituted in high schools, where the procedure, owing to the larger numbers of tenth and twelfth graders per school, would prove burdensome to school coordinators, and would carry with it few lessons generalizable to eighth graders in 1988.

1.2.4 School Selection

First, eighth grade schools in each county chosen were sorted by district. In the next step, schools were categorized according to file type (public, other private, or Catholic sector) within district. This categorization allowed for the total number of schools (N) and the total number of eighth grade students for each file type (cumulative sum) to be calculated for each district.

School listings for each county were divided into 3 separate files, one for each file type. Fifty-two separate strata were generated.

The schools were selected with probability proportional to eighth grade size according to the following specifications.

N = # of cases in the sample
n = # of cases to be sampled
cw_i = cumulative size of case i

The cumulative grade 8 size for each school was calculated using Lotus.

The sampling interval (SI) was calculated according to the following algorithm.

$$SI = cw_N/n$$

A random start (RS) was chosen such that, $0 < RS \leq SI$. Random numbers were generated for each state's system file using the command COMPUTE STARTNO=UNIFORM(SI) in SPSS/PC+. The first random number generated was selected for use.

The schools were selected such that,

$$\begin{aligned} RS + 0{*}SI &= \text{SELECTION } 1 \\ RS + 1{*}SI &= \text{SELECTION } 2 \\ &\vdots \\ RS + n{*}SI &= \text{SELECTION } n + 1 \end{aligned}$$

If a particular school had an enrollment > SI, that school was automatically chosen for the sample, but if additional schools needed to be selected, that school was removed from the sample and the aforementioned procedure was repeated.

1.2.5 Student Selection

As soon as school cooperation was secured, the next step was to obtain complete rosters of all students classified as eighth graders during the fall term of the 1986-87 school year. The school principal or his/her designated representative was asked to review the roster to identify students whose physical, emotional, or learning handicaps or linguistic disabilities would effectively preclude participation in the survey. The school administrator was asked to code the specific reason for ineligibility in each individual case. For the coordinator's instructions for coding and annotating the eighth grade roster, see the List of Appendices.

The administrator was also asked to annotate the eighth grade roster so that all Hispanic and Asian-Pacific students could be separately identified. Three lists of eligible students were then produced, separating students into core, Hispanic, and Asian-Pacific Islander. No student appeared on more than one list--that is, if a student was classified as Hispanic or Asian-Pacific in ethnicity, that student was removed from the core list. This field test procedure will not be repeated in the base year, which will require the merging of core and supplementary samples for population and subgroup estimates. Then, the core sample will be drawn from the list of all eligible students without regard to ethnicity, and supplementary Asian and Hispanic samples will be drawn from the lists of all remaining Asian and Hispanic students.

Random numbers were generated using a computer program (developed by NORC's sampling statisticians) that takes account of class size, desired sample size, and numbers of OBEMLA supplementary students identified on the school roster. The field test procedure was to select the same proportion of Hispanics as were present in the eighth grade of the school, while Asians were selected at a rate double their representation in the school's eighth grade. Once the supplementary samples were drawn, the balance of students needed to reach the desired sample size of 32 was selected from the list of core students.

The method for capturing OBEMLA supplementary students will be adjusted in the base year so that desired supplementary sample sizes (each supplement will encompass approximately 1,600 students) can be achieved. The field test had no such specific numerical target for Hispanic and Asian-Pacific students, but rather the more general goal of capturing large enough numbers of language minority students to sustain a reasonable trial of the language minority items in the student questionnaire, and to assess any possible impact of subgroup membership on other items in the research instruments. A second goal was to assess the basic supplementary sampling procedures, particularly the school's capacity to accurately identify such students on eighth-grade rosters. Success in reaching these two goals will be evaluated in Chapter Three of this report.

Supplementary samples were not drawn for the high schools. Using the same computerized sampling program that was employed with eighth-grade schools, random samples of sixty tenth graders and sixty twelfth graders were drawn from the eligible students (the same definition of eligibility was used for the high schools as was used for eighth grade) in the appropriate grade level of the school.

The NELS:88 field test also experimented with procedures for handling transfer students (in and out of the selected schools). To adjust the student sampling frame to reflect changes in the sample, the roster was updated one week to ten days prior to the actual data collection. At this time, additional sample changes, including such changes of status as death or having dropped out since selection, were also noted, with the roster again annotated to record these students as having been lost to the sample for specified reasons.

Transfers-out--that is, any student who had left the school and who was enrolled in a new school--were noted, and stricken from the sample. Transfers-in--that is, any student who transferred into the eighth grade of the school subsequent to the date on which the sampling roster was generated --were also listed. Names of transfer students were listed by ethnicity--core, Hispanic, Asian-Pacific Islander--as in the initial selection. Each new student was given a chance of selection into the sample. Transfers-in were selected with the same probabilities as students who were included in the initial sampling in that particular school, so that the within-school weights of initially selected students and selected transfer students would be the same. This was accomplished by utilizing, for each of the three selection lists, the same number sequence for selection that had obtained in the initial sampling of the school. If the first random number was greater than the number of new students, no new student was sampled. If a school had many students transferring in but few transferring out, it was possible to have a sample size slightly greater than the original selection of 32 eighth graders. We did not attempt to compensate for the other forms of sample attrition. (Also, no attempt was made to update the high school sample, in any way.) While in High School and Beyond, students who had died, become unavailable or incapacitated, or had dropped out were substituted for, students who were lost to the sample for such reasons in the NELS:88 field test were not replaced. The sample updating procedures will be assessed in Chapter Three of this report.

1.3.0 Securing Cooperation

Introduction

Securing approval to conduct the study from school authorities at various levels was a major task of the field test. This process was shaped by the fact that each individual school belongs to one of three school sectors, each of which has its own organizational structure: the public schools; the Catholic school system; and non-Catholic private schools. Each system exhibits different kinds of authority relations between local and non-local school structures, which in turn make for differences in the approval process.

Public schools exist within a hierarchy of authority that extends from the state education department under a Chief State School Officer; to a district headed by a superintendent and, normally, governed by a school board; to, sometimes, a more local and subordinate district or subdistrict; and finally to the individual public school headed by a school principal. While for the public schools there is no higher point of authority than the state education department, the state chiefs associate at the national level in the Council of Chief State School Officers. Each of these authority levels--state, district, and school--exhibits a degree of autonomy, such that securing cooperation at a higher level does not carry with it a guarantee that subordinate levels within the authority structure will also agree to participate in a study such as NELS:88.

Catholic schools exist within a more limited hierarchy of authority consisting of only the diocese or archdiocese and the individual school. There is no state-wide or national authority, though the National Catholic Education Association gives voice to the common interests and concerns of Catholic-sector schools.

Non-Catholic private schools seldom acknowledge any authority other than the local school. In a very few cases, some limited, local hierarchy of authority may obtain. While no one organization speaks for this sector, there are influential national and regional groups that articulate the views and objectives of various segments in the non-Catholic private school sector.

In approaching the public sector schools, we first sought approval from the Council of Chief State School Officers. Then we contacted Chief State School Officers. When their approval had been secured, we contacted district superintendents. Finally, we contacted the school principals.

In approaching the Catholic schools, we informed the National Catholic Education Association and relevant archdioceses and dioceses of the field test, then contacted the principals of sampled schools. In the case of other private schools, we contacted the school principal directly.

1.3.1 Role of CEIS and Other Bodies

Prior to contacting the chief state education officers of the five field test states, endorsement of the study was sought from the Committee on Evaluation and Information Systems (CEIS) of the Council of Chief State School Officers. Dr. John Stiglmeier, a member of the National Advisory Panel for NELS:88 who is also active in CEIS, reviewed the NELS:88 design and survey materials on behalf of CEIS, recommended approval, and upon approval was appointed the official CEIS-NELS:88 liaison. CEIS also delegated to its Subcommittee on Testing the task of monitoring the development of the NELS:88 cognitive test battery. The fact of CEIS approval of the field test was incorporated into the state contact letter.

Letter and telephone contact was initiated with the National Catholic Education Association (NCEA). This contact took place at a time of transition at NCEA, with a new president just stepping into that role. While the new president had little time to consider ways of assisting with the field test during the transition period, she suggested that contact be re-established in the spring of 1987 so that NCEA could explore ways that the base-year study could be supported--particularly, means by which NCEA might be of help in securing the cooperation of Catholic schools. Contacts with NCEA will be followed up in anticipation of the base year, and contacts with organizations representing other private schools (for example, the Council on American Private Education [CAPE] and the National Association of Independent Schools [NAIS] will be initiated.

1.3.2 Securing State Cooperation

The first step toward securing cooperation with the public school sector was taken at the state level. In August of 1986, the NORC Project Director sent a letter to Chief State School Officers in Florida, New York, California, Texas and Illinois, requesting each state's cooperation in the field test of NELS:88. Specifically, the letter and accompanying informational materials explained the study's design and purposes, and noted that the NELS:88 materials and design had been reviewed on behalf of CEIS by Dr. John Stiglmeier, who had given tentative approval of the survey and would recommend its endorsement by CEIS at its September 1986 meeting. In addition, the letter requested that the Chief State School Officer appoint a State Coordinator for NELS:88. The role of the State Coordinator was defined in relation to three tasks: (1) to maintain liaison between the project and the state department of education so that project staff could keep the state informed of the progress of the field test; (2) to handle inquiries from district supervisors concerning state approval of the study; (3) to consult with project staff on those survey-related problems at the district or local school level that might require resolution from the state department of education.

Ten days after the mailing, the Project Director and Associate Project Director telephoned the five Chief State School Officers to confirm receipt of the materials and to urge endorsement of the study. In most cases, by this time, the chief had delegated responsibilities for further contacts with NORC, if he had not already appointed a coordinator. Chief State School Officers or their designated representatives required relatively little in the way of persuasion, although they often required additional information and were particularly interested to learn which districts in their states would be asked to participate. After securing the state's endorsement, the next matter of business was to obtain the name of a State Coordinator.

1.3.3 Role of State Coordinators

The State Coordinator was typically a staff member of the state education department, usually someone concerned with research and evaluation. After NORC received the name of the appointed state official, the Associate Project Director called to welcome him or her to the National Education Longitudinal Study of 1988, discussed the role of the State Coordinator, and sent additional materials about the study as well as a list of districts to be contacted and a copy of the proposed contact letter for district superintendents. In four states, coordinators requested no changes in the draft NORC district contact letter, although all reviewed it and insisted on their right to ask for modifications if they thought them necessary. In New York, in order to tailor the NORC letter to the State Department of Education letter, minor changes were effected in the NORC district contact letter.

At this time, ways of contacting the districts were explored with the State Coordinator. Three main options were mentioned. The first possibility was that the district contact letter could be modified so that it became a joint letter, from the NORC Project Director and the State Coordinator. The second option was that NORC would proceed and send the contact letter under the Project Director's signature. The third possibility was that a separate state letter precede or accompany the NORC district contact letter.

Given the need to contact the districts as quickly as possible, it was usually mutually agreed that NORC should send its prepared contact letter at once, and that the coordinator would not write to or otherwise contact a district unless there was need for specific intervention. The one exception to this was New York State, where Dr. Stiglmeier sent his own letter, and asked that NORC refrain from sending its district letter until after superintendents had time to read the letter from the state. Some other coordinators would have been willing to write letters or contribute to the NORC letter, but would have required considerable lead time in order to do so. Others were not convinced that this would be in any way useful in their states. Since the project Master Schedule calls for somewhat earlier (May 27-August 29, 1986) state contacts in the base year, it also offered more opportunity to work with willing state coordinators to develop joint letters to superintendents of selected districts.

Coordinators wished to be kept informed about the progress of the study in their state. None, however, requested a formal report. All expressed their willingness to be consulted for advice and for special help, though several stressed that they had limited influence in the matter of persuading superintendents to participate in such a study. All of the state coordinators were busy people, with demanding schedules, often involving extensive travel. Their availability therefore was often limited, and one recommendation we would make for the base year is that whenever possible State Coordinators appoint a deputy capable of covering their duties in their absence. Within the limits of their physical availability, however, all of the State Coordinators proved consistently willing to help.

After district contact had been initiated, State Coordinators assisted the study in several ways. State Coordinators were good sources of information about personnel changes and the structure of review authority within districts. They also were highly informative in the matter of the various testing programs going on in the state and the research climate in general. In the case of initial refusals, some coordinators made special efforts to persuade unwilling districts. In California, for example, the State Coordinator encouraged his superior, the Director of the Program Evaluation and Research Division, to write directly to two reluctant superintendents. One of the two was swayed, and we obtained limited participation upon recontacting that district. In New York, the State Coordinator helped establish contacts with appropriate persons in the New York City Board of Education, so that a lengthy and demanding review process could be initiated in the most efficient way. In Texas, the State Coordinator was able to point to a substitute district that was like a refusal district in overall characteristics but was less overburdened by testing commitments than the refusal district, and which had a management structure conducive to making a prompt decision about participation. That district was added to the sample. The same sort of advice was sought in another state, although in that instance the district recommended by the State Coordinator refused and was also unpersuaded by the coordinator's direct appeal.

Coordinators several times stressed their limited effectiveness as persuaders of districts, and some district personnel expressed resentment that state research personnel who were imposing substantial state testing burdens upon them should then be the ones to urge them to take on yet another such burden. Overall, however, State Coordinators proved a vital asset, and contributed substantially to the success of the field test in the public schools.

1.3.4 Securing District Cooperation

Eighty-two schools were sampled from the five NELS:88 field test states (see Section 1.2, The Field Test Sample: Design and Respondent Selection). This report will discuss these schools as two samples--the 52 school eighth grade school sample and the 30 school high school sample. Tables 1-1A and 1-1B summarize the breakdown of the eighth grade and high school samples by school type (that is, public, Catholic, or other private sector).

TABLE 1-1A

EIGHTH GRADE SCHOOLS IN NELS:88 FIELD TEST ORIGINAL SAMPLE

Counts by School Type

SCHOOL TYPE		PUBLIC	PRIVATE	CATHOLIC	TOTAL
ORIG.SAMPLE	N	40	6	6	52
	%	76.92%	11.54%	11.54%	100.00%

TABLE 1-1B

HIGH SCHOOLS IN NELS:88 FIELD TEST ORIGINAL SAMPLE

Counts by School Type

SCHOOL TYPE		PUBLIC	PRIVATE	CATHOLIC	TOTAL
ORIG.SAMPLE	N	22	2	6	30
	%	73.33%	6.67%	20.00%	100.00%

1.3.4.1 Procedures

The 40 public eighth grade schools and the 22 public high schools in the sample represented 31 districts. In September, district superintendents were notified by letter (see List of Appendices) explaining the objectives of the study and asking for cooperation and approval to contact the schools in their districts included in the sample. A follow-up phone call was made by NORC to answer any questions district personnel might have and to ascertain the district's decision. This follow-up phone call was usually made by central office contact staff, with the Project Director and Associate Project Director available for advice or intervention if problems arose. In the case of Catholic schools, a letter of notification about the study was sent to each appropriate diocese informing these officials that NORC would be contacting certain schools to participate in the NELS:88 field test. No follow-up phone call was made to the Catholic dioceses.

1.3.4.2 Problems

Problems were encountered with several of the large school districts that were contacted. Dade County, Florida was reluctant to ask school principals to consider allowing another research effort to be conducted in their schools. School principals felt that the previous NAEP had been seriously misadministered and were consequently hostile to the idea of more testing in their schools. The Superintendent's office thought that time needed to pass before schools could be approached again. Since Dade County would almost certainly be drawn in the Base Year sample, the Superintendent's office thought that field test research should be conducted elsewhere and that the district office could have more positive influence on behalf of the study in 1988 if NELS:88 kept out of Dade County in 1987.

Los Angeles Unified was another district that initially refused to participate in the field test because schools were overburdened generally and undergoing a heavy load of testing. The study was reviewed by the district personnel and the primary objection raised concerned the disproportionate representation of Los Angeles Unified District. (NORC, of course, had never intended to draw a state-representative sample in California. As explained in Section 1.2, for each field test state only two counties were sampled.) Upon persuasion from NORC personnel, the California State Coordinator and Alexander Law (Director, Program Evaluation and Research Division, California State Department of Education), the district agreed to choose one school to participate in the study; because there was a long review and appeal process in the Los Angeles Unified District, NORC was delayed in contacting substitute schools for the five schools that needed replacing. This delay forced us to extend the contacting phase of the field test. Other Los Angeles County Districts refused because of heavy testing schedules. We were told by Long Beach School District that the fall was too late to contact their schools for scheduling; schools in that district want notification as early as late spring of the preceding school year.

Queens County, New York, required an extensive project review. This review created delays in the schedule (see section, 1.3.5, below, Special Case of New York City).

1.3.4.3 Outcomes in Public Districts

The 40 public eighth grade schools in the sample represented 31 districts. Phone follow-up to these district superintendents resulted in the cooperation of 24 districts. One district, the Los Angeles Unified District, while agreeing to cooperate, would not allow us to directly contact the six schools sampled. Instead, the district found one eighth-grade school that volunteered to participate. One district in New York informed NORC that a decision could not be made by the district until the study was formally approved by the Office of Educational Assessment of the New York School Board.

Six districts refused to cooperate for the following principal reasons:

Overburdened with other testing, not notified soon enough, and the fact that this was "just" a field test	1
District overburdened with testing. Hostility felt at school level, owing to the schools' (and district's) perception that the previous NAEP had been seriously misadministered	1
Overburdened with other testing, and the timing was bad	3
Superintendent felt the study placed too much work on schools	1

No refusals were motivated by objections to the test or questionnaire contents. New York City, however, did object to the test and questionnaire content, but agreed to cooperate if changes were made or items stricken for New York City administration.

1.3.5 Special Case of New York City

New York City represents a special case in the matter of securing cooperation. While many larger districts are administratively complex and may require detailed and time-consuming review by a research and evaluation committee or by district specialists, in no other field test site was the review process so lengthy (four months) or so extensive as in New York City. Nor did we encounter elsewhere the number and magnitude of restrictions on conduct of the survey imposed by the New York City Board of Education. However, the Board's Office of Educational Assessment was unstintingly helpful throughout the process, and made many special efforts to accommodate the survey's needs.

Because the New York City system has both a highly ramified central bureaucracy and decentralized subdistricts administered with a high degree of autonomy by their own superintendents and local school boards, lines of authority are often unclear. Our initial contacting effort was aimed at five of the semi-autonomous subdistricts: four community school districts containing eighth grades and the Queens High School District. One subdistrict refused to participate. Officials of three subdistricts felt that we needed no central board approval to proceed with the field test, but a community school district with two selected eighth grade schools insisted that we must have Board of Education approval before they could continue discussions with us. With the help of the New York State Coordinator, we contacted the Office of Educational Assessment of the New York City Board of Education.

The Office of Educational Assessment agreed to begin the review process at once and asked us to send copies of all questionnaires, a copy of the cognitive test battery, copies of explicit consent forms, draft letters to district superintendents and principals, and a proposal for conducting field work in New York City. These materials were sent via Federal Express overnight delivery on October 22, 1986. The study was discussed at the next meeting of the review committee (November 15, 1986) and it was decided that while the study would be approved, restrictions would be imposed on both the content of the instruments and the methods for data collection. Modifications needed to be worked out in detail before approval could be formalized. The Office of Educational Assessment generously allowed us to contact schools while the review of the study continued. Despite this fact, the subdistrict that had insisted on Board of Education approval would not permit us to contact schools in its jurisdiction until they had received formal written notice of final approval from the Board of Education.

The Board of Education asked for the following changes:

- Modification of the parent and student information materials to put added emphasis on the sensitive content areas in the student and parent questionnaires (for example, family structure, financial data, health problems), and to lay additional stress on the possibility of being asked to participate in follow-up studies.
- Use of explicit parental consent only (that is, no principal or subdistrict superintendent would be allowed to opt for implied consent).
- Modification of specific items on the cognitive test battery.
- Modification of specific items on the questionnaires.
- Disallowal of certain data collection procedures. These included telephone or in-person follow-up of parents in connection with outstanding explicit permission forms or the parent questionnaire, and telephone retrieval of missing data from the parent questionnaire unless the respondent had provided a telephone number for this purpose.

These proposed changes were negotiated. The Office of Educational Assessment was extremely open to discussion of all substantive and procedural issues. On the cognitive test battery, one reading passage taken from NAEP was modified so that "troll" replaced the word "devil." We successfully argued for the need to keep the religious preference, financial background, and education costs questions, and for retaining the locating questions, with the exception of (on the student questionnaire) home telephone number and name, address and phone number of a close friend or relative. We argued unsuccessfully for allowing principals to choose the method of implied consent, and for allowing telephone follow-up of parents to obtain permission forms and prompt for return of the parent questionnaire. Since survey forms were still under OMB review, it was agreed that the questionnaires would be resubmitted for a final New York City review after any changes imposed by OMB had been effected, and that the New York State-sponsored supplemental questions, still under development, would also be submitted for review. However, one major unresolved issue remained, namely, approval by the Board's legal office of the request for rosters containing the names of students enrolled in the eighth, tenth or twelfth grade in the selected New York City public schools.

Review of the study by the legal office took considerable calendar time and their approval was not granted until January 16, 1987. Fortunately, this approval will extend through the base year and NELS:88 will not have to undergo a second legal review in New York City. Once this approval had been extended, the Office of Educational Assessment immediately requested its central computer facility to generate copies of the newly-updated student rosters for our use in the selected schools. However, owing to other demands on the computer facility, rosters were provided to us only on March 10, 1987. (The Office of Educational Assessment has requested further discussions of the timing and extent of our roster-generation needs for the base year, so that they can be sure those needs can be met in a timely and efficient fashion.)

Formal approval to conduct the field test in the New York Public Schools was granted in a letter from the Director of the Office of Educational Assessment, February 6, 1987.

Lengthy though the review process was in New York City, there is reason to suppose that approval can be achieved more quickly in the base year. Legal review will not be required. Questionnaire review can move quickly, if base-year changes in the field test instruments are not extensive. NORC has established close relationships with the principal actors in the review process, and the New York Board is well aware of the special value--to them and to the state education department--of the New York State instrument and sample augmentation.

In addition, we have begun to discuss the field test results with the Office of Educational Assessment. They have expressed a strong interest in working closely with us to ensure the success of the study in 1988. We believe that the evidence of the field test points strongly toward the conclusion that the requirement of explicit parental consent, especially when coupled with disallowal of telephone prompting for permission forms, will be damaging to the study in New York City in the base year. We also continue to feel that in order to maintain data comparability between New York City, the rest of New York State, and the nation--and in order to obtain needed locating information for the 1990 follow-up--it is desirable that no content changes be imposed on the tests or questionnaires. The New York Board is especially concerned that the study be implemented with due attention to the linguistic diversity of New York City eighth graders and their parents, and we will be discussing with them the prospects for translating parent contact and permission documents into Spanish and additional languages, and will be exploring the desirability of Spanish-language editions of questionnaires.

1.3.6 Securing School Cooperation

1.3.6.1 School Contact Procedures

School contacting for the NELS:88 field test was done by both central office personnel and NORC's field staff. It was felt that in some cases a local contact from someone living in the school's community would be an advantage to gaining the cooperation of the school. In other cases, it was felt that contacting could be more successfully effected by NORC's central office staff, with their more intimate understanding of the research goals of the study. All mail contact with the school was from NORC's central office. Telephone follow-up to individual schools was made by central office staff and NORC's field staff.

The first step in contacting a school was to send materials to the school principal explaining the study, asking for his or her cooperation in allowing the school to participate, and informing the principal that he or she would be contacted by one of NORC's staff to discuss the project. All letters were sent from NORC, and phone contact with the principal was initiated one week later by either the field (a senior Field Manager) or central office (an Assistant Survey Director). In schools where phone follow-up was effected by the field, the Field Manager was supervised by a central office staff person. The central office representative forwarded a case to the field when it was ready for phone contact. All subsequent mail contact to school was written in the central office, copied for the contacting field person, and sent on to the school. Principals who agreed to have their schools participate were asked to choose a date for the Survey Day and the Make-up Day. They were also asked to designate someone to act as school coordinator for the project. Finally, type of permission required by the school was discussed. In many cases the principal decided to act as the School Coordinator and other pertinent issues were discussed at this time.

Public Schools: Eighth Grade

From the 24 districts that agreed to have schools contacted, 25 junior high school principals were sent letters explaining the objectives of the study and asked to allow their school to participate. As shown in Table 1-2A, 21 schools agreed to participate and entered the field test study. One school was ineligible because it no longer contained an eighth grade. The four schools that refused did so for the following reasons:

Involved with other testing..........................3
Felt it was too much work............................1

Public Schools: High Schools

Fifteen high school principals were also sent letters explaining the objectives of the study and asked to have sophomores and seniors in their school participate in the field test. As shown in Table 1-2B, twelve schools agreed to participate and entered the study. The three schools refused because the principals thought there was too much burden, especially for a study that targets eighth graders.

Substitutions

District refusals and school refusals resulted in the need for school substitutions. School substitutions were normally made from replicate samples except in two instances. In Texas a district was chosen for us by the State Coordinator after four districts from the replicates were contacted and refused to participate, and in California one district with two eighth-grade schools was recruited into the sample by one of NORC's field staff. Some substituted schools were in districts that had already agreed to cooperate, while others required that a new district contact be initiated. Twenty-nine eighth grade school substitutions were needed before 17 schools finally agreed and entered the sample. District and school refusals were primarily based on the reasons mentioned above.

In several cases, schools could have accommodated the study if the field period had been longer. While in the base year it will be practical to have a longer field period, the field test dates were constrained by the deadlines for the field test report and RES, FEDAC, and OMB review of the revised instruments.

In California, where the delays occasioned by the lengthy Los Angeles and Long Beach reviews had slowed down the schedule seriously, some districts were approached unofficially to identify a suitable site that could make a prompt decision before one such district could be identified. Also in California, the private school sample was increased by one school because the extensive time that would have been needed to initiate the formal district and public school contacting procedure. When all contacting was finally complete, 38 public eighth grade schools (95 percent of our target N) and 26 public high schools (86 percent of the target N) agreed to cooperate. While the final school N was slightly under the original targets, it was felt that with reasonable in-school participation rates this N should yield numbers within the required test observation levels. It was therefore decided to add no further schools. However, when twelfth grade participation rates subsequently proved lower than hoped, and some tests were lost in the mail, a special supplemental twelfth grade session was arranged in Chicago.

Catholic School Contacting

Letters were sent to six junior high principals and six high school principals of Catholic schools informing them of the objectives of NELS:88 and asking them to participate in the field study. Three eighth-grade schools and three high schools agreed to participate and entered the sample (see Tables 1-2A and 1-2B). The remaining six schools refused for the following reasons:

Eighth grade schools:	
School was busy undergoing accreditation	1
Principal concerned that the study looked to be too time consuming and did not like the idea that parents would be asked to participate	1
School was involved in a Jesuit longitudinal study	1
High schools:	
Timing was not right	1
School felt that a government study would not benefit a Catholic institution	1
School did not have adequate space	1

Substitute schools were chosen from replicate samples. Six eighth grade and six high school substitutes were contacted before three eighth-grade schools and two high schools agreed to cooperate and entered the sample. Catholic high schools in Du Page County, Illinois, were uncooperative. All five high schools were contacted, and no school would agree to participate. One of these schools had a standing rule that it did not allow researchers into the school. All of the others did not have the time to devote to the study because of other standardized testing. Eighth-grade Catholic schools in Queens county also proved to be difficult. Of the three schools sampled, none would participate owing to the fact that they thought the survey too burdensome. Finally, the Diocese was asked to help, and a school was chosen to participate. The six eighth grade schools represent 100 percent of the original target sample N of six. The five high schools represent 83 percent of the original target N of six (see Table 1-2A and 1-2B).

Private School Contacting

Six eighth grade principals and two high school principals of private schools received a letter inviting them to participate in the NELS:88 field test. Table 1-2A shows that three eighth-grade schools agreed to participate and entered the sample. Table 1-2B shows that one high school agreed and entered the sample. One eighth-grade school was ineligible because it is a facility for mentally and physically handicapped children. The two eighth-grade schools and one high school refused participation for the following reasons:

School undergoing accreditation........................	1
School was overburdened with other testing..	2

Eight substitute eighth grade schools and one substitute high school were contacted and five schools (four junior highs and one high school) entered the sample. One substitute was ineligible because it was a learning disability facility. Two refused because the survey demanded too much time from school personnel. One refused to give a reason for not participating. The seven private eighth grade schools represent 116 percent of the target sample N of six. The two private high schools represent 100 percent of the target N of two.

TABLE 1-2A

EIGHTH GRADE SAMPLE REALIZATION BY SECTOR

SCHOOL TYPE		PUBLIC	PRIVATE	CATHOLIC	TOTAL
ORIG.SAMPLE	N	40	6	6	52
	%	76.92%	11.54%	11.54%	100.00%
AGREED		21	3	3	
		52.5 %	50.0 %	50.0 %	
REFUSED		4	2	3	
		10.0 %	33.3 %	50.0 %	
DIST REFUSAL		10			
		25.0 %			
DIST RESTRICTIONS		4			
		10.0 %			
INELIGIBLE		1	1		
		2.5 %	16.7 %		
SUBSTITUTIONS		29	8	6	
AGREED		17	4	3	
		58.6 %	50.0 %	50.0 %	
REFUSED		4	3	3	
		13.8 %	37.5 %	50.0 %	
DIST REFUSAL		8			
		27.6 %			
INELIGIBLE			1		
			12.5 %		
TOTAL	N	38	7	6	51
	% of original	95.00%	116.67%	100.00%	98.08%

TABLE 1-2B

HIGH SCHOOL SAMPLE REALIZATION BY SECTOR

SCHOOL TYPE		PUBLIC	PRIVATE	CATHOLIC	TOTAL
ORIG.SAMPLE	N	22	2	6	30
	%	73.33%	6.67%	20.00%	100.00%
AGREED		12	1	3	
		54.6 %	50.0 %	50.0 %	
REFUSED		3	1	3	
		13.6 %	50.0 %	50.0 %	
DIST REFUSAL		5			
		22.7 %			
DIST RESTRICTIONS		2			
		9.1 %			
INELIGIBLE					
SUBSTITUTIONS		14	1	6	
AGREED		7	1	2	
		50.0 %	100.0 %	33.3 %	
REFUSED		3		4	
		21.4 %		66.7 %	
DIST REFUSAL		4			
		28.6 %			
INELIGIBLE					
TOTAL	N	19	2	5	26
	% of original	86.36%	100.00%	83.33%	86.67%

TABLE 1-3

FINAL ALLOCATION OF SAMPLE SCHOOLS TO STATES AND SECTORS

Eighth Grade Schools

State		Public	Catholic	Other Private	Total
New York	8th Gr Enr	6	2	1	9
Queens	23,000	3	1	1	5
Erie	15,000	3	1	0	4
Florida		6	1	1	8
Palm Beach	8,000	6	0	0	6
Dade	23,000	0	1	1	2
Illinois		7	1	1	9
Du Page	11,000	5	1	1	7
Adams	1,400	2	0	0	2
Texas		9	1	1	11
Harris	43,000	6	1	1	8
Trinity group	2,000	3	0	0	3
California		10	1	3	14
Solano	4,000	3	0	0	3
Los Angeles	119,000	5	1	3	9
San Diego		2	0	0	2
TOTAL		38	6	7	51

TABLE 1-3 (CON'T)

Tenth-Twelfth Grade Schools

State	Public	Catholic	Other Private	Total
New York	4	2	1	7
Queens	2	2	0	4
Erie	2	0	1	3
Florida	4	0	0	4
Palm Beach	4	0	0	4
Dade	0	0	0	0
Illinois	3	0	0	3
Du Page	2	0	0	2
Adams	1	0	0	1
Texas	4	1	0	5
Harris	3	1	0	4
Trinity group	1	0	0	1
California	4	2	1	7
Solano	1	0	0	1
Los Angeles	3	2	1	6
San Diego	0	0	0	0
TOTAL	19	5	2	26

TABLE 1-3 (CON'T)

All Schools

State	Public	Catholic	Other Private	Total
New York	10	4	2	16
Queens	5	3	1	9
Erie	5	1	1	7
Florida	10	1	1	12
Palm Beach	10	0	0	10
Dade	0	1	1	2
Illinois	10	1	1	12
Du Page	7	1	1	9
Adams	3	0	0	3
Texas	13	2	1	16
Harris	9	2	1	12
Trinity group	4	0	0	4
California	14	3	4	21
Solano	4	0	0	4
Los Angeles	8	3	4	15
San Diego	2	0	0	2
TOTAL	57	11	9	77

1.3.6.2 Treatment of Nonresponding Schools

We attempted to convert all districts and schools that initially refused to participate in the NELS:88 field test. The general approach involved was to emphasize our willingness to work within the school's schedule and to offer assistance by our field staff for clerical duties normally assumed by the school coordinator.

The schools and districts that gave mild resistance at first were easily persuaded by the precise detailing of what was involved and our desire to minimize inconvenience to the school. In some instances a district sought to find a replacement school when the sampled school would not participate.

We had difficulty converting schools and districts that were already burdened with other testing. The principals and superintendents were not willing to take on a burden for a field test. Many expressed the view that our chances would be better for participation in the base year if we did our field testing elsewhere. The Los Angeles Unified School District was converted but reduced the number of schools (see above). In two school situations we successfully convinced schools to cooperate only to have them back out later in the field period because they perceived the study to place too heavy a burden on the school.

One incentive that could not be offered in the field test but might be made available in the base year is the return of school level or district level data, with a national comparison point. Some schools specifically requested to see some sort of data from the field test.

1.3.6.3 Types of Schools Least Likely to Cooperate

Certain areas of the country seemed harder to obtain cooperation in than others. Harris County (Houston) had four districts refuse because of involvement with other testing. Los Angeles County also seemed overburdened with the California Assessment testing and district level testing, and its high schools were involved in the new Golden State Exams. The type of schools least likely to cooperate were small Christian private schools and small Baptist private schools. Some were persuaded to enter the sample by the argument that they were a rare school type that needed to be included in the study if we were to achieve a true picture of contemporary American schooling, and that their unique characteristics very much needed to be represented in the data. Even when the private Baptist schools agreed to participate they had very poor attendance on Survey Day due to denial of parental permission. Although we had expected Catholic schools to be more cooperative than public, in the event they turned out to be less so.

1.3.6.4 Characteristics of Final School Sample

The characteristics of the final 51 schools that made up the eighth grade cohort of the NELS:88 field test are the following:

39 public schools, of which 33 were from urban counties and 5 from rural counties

7 urban other private schools: 1 had approximately 98 percent Hispanic enrollment, 2 were Baptist schools, 2 Lutheran schools, 1 Christian school, and 1 elite private

6 urban Catholic; 1 had 100 percent black enrollment

The 26 high schools consisted of:

2 rural public schools

5 urban Catholic schools: 1 boys' school, 1 girls' school, 3 co-ed schools

2 urban other private schools.

1.3.6.5 Recommendations and Conclusions

District contacting should be done early and the names of the sampled schools should not necessarily be included in this initial contact. We found during the field test that when some districts were initially contacted and told which schools were selected, the district proceeded to contact the schools for their opinion. In many cases this procedure helped us because the district informed us that the school would gladly participate and our next phone contact with the school was not to persuade but to gather information and set up the survey. In retrospect this gain, other than the gain in schedule time, was insignificant because these were very cooperative schools and most probably would have participated just knowing that the district had been notified and had not objected. In other cases, though, where schools were unwilling to participate, the district informed us that the school was unwilling and would not allow us to proceed to contact them directly. We were not seeing a district refusal but a school refusal. We had no control over how the material was presented to that school, nor were we given any chance to try to convert the school. Of course, in practice it is likely that districts often will ask to know the schools that have been selected, and district officials will often want to consult with schools. In such situations it may prove beneficial to send school-specific materials to the districts along with the names of the selected schools to be forwarded to the principals.

When contacting school principals, phone follow-up should ideally be made within a few days after the principal's receipt of our initial contact letter. In field test schools where more than a few days had elapsed we found that a remailing of materials was necessary, thus delaying the contacting schedule needlessly.

When discussing the permission issue with principals in the field test, we usually asked, "What type of permission is required in your school?" In many cases, the principals chose explicit consent without realizing how hard the tracking effort would be for both the school and NORC. If possible, we could send a copy of the implied consent form stating that if the schools had any objections to that form they should discuss it with us. Most schools will probably accept that form after seeing it, unless constrained by district or state policy to use explicit consent. In addition, our field test experience will enable us to document the difficulties of explicit consent in a way that should prove convincing to principals in the base-year study.

The principal usually chose a School Coordinator. We asked principals to inform these persons of their selection before we made contact with them. In many cases, the principal informed these coordinators of their assignment but did not give them all of the materials explaining the study in detail. It would be desirable to have a School Coordinator Manual to send in one base-year survey--a method used in HS&B. This manual would contain an overview of the study and descriptions of tasks arranged by time span prior to Survey Day. Often School Coordinators indicated that they wanted to know exactly what they were going to have to do from the beginning. The manual would help them to be organized.

Additional materials should be developed to enhance effectiveness in dealing with religious schools. Our arrangements for close cooperation with NCEA, and the interest of the High School and Beyond data for policy makers and researchers in the Catholic sector, will facilitate making an effective appeal to Catholic schools. The small religious academies will constitute a special challenge in 1988 because they often are fearful of Federal studies, see little benefit from them, and have no centralized authority that can be appealed to for help in persuasion.

In general, we found that a strategy of flexibility was the most effective way to deal with refusals, both at the district and the school level. We stressed the immense value of NELS:88 and the relatively minimal demands on class time for a limited number of students and teachers. We pointed out that NORC field staff would shoulder much of the survey burden in the school. The honorarium to School Coordinators was an effective gesture. We made scheduling flexible to accommodate the school--this was more difficult to do within the compressed field period of the pretest than it will be in the base year. Where preparation of roster or matrices seemed a problem, we offered to pay for clerical time or to send a member of our field staff to help. In many instances these strategies were successful. In others they were not. The most intractable cases seemed to be refusals based on fears that research and testing already encroached too severely on classroom time and school manpower. Given the simultaneous occurrence of other national studies of schools as well as state and district mandated testing and evaluation programs (especially at eighth-grade level), securing school and district cooperation will be a formidable task for the base-year study.

1.4 Obtaining Parental Permission

When a school was recruited into our sample the principal was asked about the type of permission required from the parents to allow the students to take part in this type of study. If there was no state or district policy requiring explicit permission, an argument for implied permission was made. It was pointed out to the principal that the implied permission form did not compromise the rights of parents to object to their child's participation in the study. On the other hand, the explicit form, while not adding extra protection, would adversely affect the overall participation rate of respondents, and, therefore, damage the quality of research and data collection. We could never be sure if an unreturned form represented an informed decision against participation. Tracking unreturned forms, we stressed, could be expensive and time-consuming.

Fourteen of the 51 eighth grade schools required explicit permission. One required no permission at all. The remaining 36 schools chose to use the implied permission form. Of the 26 high schools, seven required explicit permission, one required no permission and 18 used the implied permission form.

Implied Consent Procedures

The procedure for obtaining parental permission was to mail "student packets" containing the permission form to the School Coordinator approximately four weeks before Survey Day (see List of Appendices). These packets were to be distributed to the students at school. The student was told to take the form home to his parents. An envelope was supplied for the parents to return the permission form directly to NORC if they chose to deny permission.

Results

Generally this method worked quite well. However, in some cases the School Coordinator did not distribute the packets immediately upon receiving them. This delay gave parents less time to respond before Survey Day and consequently some forms reached NORC after a Survey Day had taken place in the school. The importance of distributing these materials immediately will have to be emphasized to all School Coordinators in the base year.

Some parents also misunderstood the nature of the implied consent form, and returned the form unsigned or crossed out the word NOT in order to explicitly give their permission. Perhaps the addition of one line saying only to return the form if the parent objected to the child's participation would clarify this minor point.

In both the eighth grade schools and the high schools, all but one School Coordinator using the implied form were happy to have NORC track the returned permission forms. One junior high school in Texas chose to use the implied consent form, but the coordinator then felt uneasy and had all the students return the form to him. If a parent was not objecting, therefore returning an unsigned form, the coordinator asked the parents to initial the bottom so he was sure they had seen the form. In effect, he was using explicit permission. One week prior to Survey Day, NORC wrote both the School Coordinator and field representative to report the status of permission for the students to be surveyed. On the day prior to Survey Day the NORC team leader was brought up to date on permission status to reflect any changes that had occurred after the official permission status letters. This update was then communicated verbally to the School Coordinator on Survey Day.

Explicit Consent Procedures

The procedure for getting permission forms to parents was the same as described above for implied consent except that we allowed five weeks for the parents to return permission forms. The two New York City Queens public high schools, though, were unwilling to hand out these materials to the students in school. The school coordinator felt it was a burden to do this task and assumed that the majority of forms would never reach home. Consequently NORC mailed the permission forms directly to parents at home addresses provided on the student roster. Queens County, New York, modified the explicit permission form for use in Queens public schools. See List of Appendices for copies of the explicit forms.

Results

Explicit permission proved to be a difficult procedure for both NORC and School Coordinators. Some of the eighth-grade school coordinators decided to track permission themselves without notifying NORC of this change in procedure. Having discovered this, we noticed that having School Coordinators track explicit permission forms did in fact improve the return of these forms. Parents and students were more likely to return the forms to someone they knew at the school rather than to an unknown institution in Chicago. Also, the School Coordinator was able to follow up on unreturned forms quickly. During the course of the field period we then asked the School Coordinators whose schools required explicit permission to help us by having the forms returned directly to them. Most School Coordinators agreed to do this. Even with this help not every student had a form returned by Survey Day (See Table 1-4A). Understandably enough, the School Coordinators wanted to interpret "no form returned" as permission denied. As a matter of fact, however, we usually found that when a form was not returned, it was only because the parent had forgotten. Some School Coordinators were persuaded to keep trying to obtain a permission form so that students in this ambiguous status would be able to participate in the survey on Make-up Day. In seven eighth grade cases the students were unable to participate because no explicit permission form had been returned.

The difficulty of explicit permission tracking in high schools was compounded by the large number of students that the coordinator had to track. Fortunately, these large school numbers will not be a feature of NELS:88 or follow-up studies. School Coordinators in high schools were also less likely to help by having the forms returned directly to them. In high schools where they did track the permission forms, they were surprised at how hard it was to do this. One high school decided to interpret no form being returned as an implied granting of permission when on Survey Day only 20 percent of the forms had been returned.

In 3 high schools that required explicit permission, the number of forms returned by Survey Day was so small that new permission forms and letters to parents were distributed again. This effort by the COS and School Coordinator was very time-consuming.

Both Queens public high schools required explicit permission. One school was very willing to help with permission tracking. The coordinator decided to have all forms returned directly to him. The school used its computerized phone message system to contact parents and urge them to return the forms and grant permission for their children to participate. The parents had 21 days in which to return their form. One week prior to Survey Day another letter was sent to each parent urging the parent to respond, and another permission form was enclosed. Still, on Survey Day at that school only 33 percent of the sophomores and 21 percent of the seniors had a signed form and could participate. The school officials refused to have a Make-up Day, stating that they could think of no other effort to persuade parents to return their consent forms. The other Queens high school was not as cooperative in helping us obtain permission from parents. Even though the School Coordinator was persuaded to have permission forms returned directly to him so he could monitor closely the return of the forms, he did nothing to assist when forms were not being returned. One week prior to Survey Day only five forms had been returned, and these forms had been mailed to NORC directly. When NORC asked if the coordinator would be willing to distribute a second permission form along with a plea letter from CES urging parents to sign and return the form promptly, he agreed. However, NORC's team leader found out on Survey Day that he never distributed this second form. Consequently, 96 percent of the consent forms remained unreturned on Survey Day.

Permission Denial

Eighth Grade Schools

Please refer to Table 1-4A for the following discussion of denials.

In public schools there were 56 permission denials, representing 4.8 percent of the eligible students. This figure includes 49 permissions that were denied and 7 cases where no permission form was returned and the students were not allowed to participate. Of the 49 denials, one student was converted by the team leader at an Orientation Day session and subsequently had permission granted and participated in the study. Two parents were converted and the students participated in Survey Day. One other student that had permission denied turned out to be a student that had transferred out of the school. It is unknown whether the parent denied permission because of the fact that the student would no longer be at the school or because the parent objected to the study.

In the Catholic schools there were 4 permission denials, which represents 2.3 percent of the eligible students. One of these students was converted by the team leader and participated in Survey Day.

In the other private schools there were 27 permission denials, which represents 14.7 percent of the eligible students. Four of these students were converted and participated in Survey Day.

The total number of permission denials in all types of schools was 87, or 5.7 percent of the eligible students.

There were 1,201 core students eligible to participate in Survey Day. Fifty-eight students (4.8 percent) had permission denied. Of the 215 eligible Hispanic students, as defined by school roster annotations, 20 had permission denied (9.3 percent). The sampled Asian group, as defined by school roster annotations, had 111 eligible students and 9 (8.1 percent) had permission denied.

High Schools

Please refer to Table 1-4B for the following discussion.

In public tenth grades 2.7 percent of the students in schools requiring implied permission and 4.8 percent of the students in schools requiring explicit permission had permission denied, bringing the overall permission denial in public schools to 3.0 percent. In the public, tenth grades we also saw that 52.4 percent of the explicit permission forms were not returned by Survey Day and/or Make-up Day, preventing 151 sophomores from participating in the study.

In the private schools using implied permission, 1.4 percent of the students had permission denied, while in private schools using explicit permission 12.1 percent of the students had permission denied. Two

students (3.5 percent) were unable to participate in the study because their permission forms were not returned.

In Catholic schools only implied permission was used, and 1.3 percent of the tenth graders were denied permission.

TABLE 1-4A

PERMISSION DENIALS - EIGHTH GRADE COHORT
BY SAMPLED GROUP AND SCHOOL TYPE

		SCHOOL TYPE			
		CATHOLIC	PRIVATE	PUBLIC	TOTAL
SAMPLED GROUPS FROM SCHOOL ROSTER	ASIAN				
	denials	0 (0.0%)	3 (21.4%)	6 (6.7%)	9 (8.1%)
	eligible	8	14	89	111
	HISPANIC				
	denials	3 (5.7%)	10 (23.3%)	7 (5.9%)	20 (9.3%)
	eligible	53	43	119	215
	CORE				
	denials	1 (0.9%)	14 (11.0%)	43 (4.5%)	58 (4.8%)
	eligible	113	127	961	1201
	TOTAL				
	denials	4 (2.3%)	27 (14.7%)	56 (4.8%)	87 (5.7%)
	eligible	174	184	1169	1527

There were 1,465 tenth graders eligible to participate in the study. Forty-three (2.9 percent) had permission denied.

In public twelfth grades, 4.0 percent of the students in schools requiring explicit permission and 5.8 percent of the students in schools requiring explicit permission had permission denied, bringing the overall permission denial in public twelfth grades to 4.5 percent. In the public twelfth grades, 62.1 percent of the explicit permission forms were not returned by Survey Day and/or Make-up Day, preventing 182 seniors from participating in the study.

In private schools using implied permission, 4.4 percent of the students had permission denied, while in private schools using explicit permission 15.0 percent of the students had permission denied.

In Catholic schools where only implied permission was used, 2.2 percent of the twelfth graders were denied permission.

There were 1,452 eligible seniors for the NELS:88 field test. Sixty-six (4.5 percent) had permission denied.

Conversions

The implied permission form provides a space for parents to supply their telephone number and refers to the fact that someone from NORC might get in touch with them to discuss the permission issue. One school coordinator objected to this part of the permission form, and for this particular school the form was modified to state that providing a telephone number was completely voluntary.

Conversion was attempted for 8 parents of eighth grade students. Three of these parents were converted (37.5 percent), and the students participated in Survey Day. In three cases NORC was informed by the parents that they did not object to the study but were denying permission as requested by their child.

The explicit permission form (except for the version used in Queens, NY public schools) also had a space to provide a telephone number. Generally, schools requiring explicit permission did not approve our desire to attempt a conversion with the parents. One School Coordinator in Erie, NY, would not allow NORC's team leader to call the parents of two students who had denied permission, but instead offered to call himself. Neither of these parents were converted. Four parents of students in a private school in California were converted by phone on Make-up Day. One student who requested his parents deny permission was converted after attending an Orientation Day presentation.

It was difficult to even attempt conversions in many cases because permission forms arrived at NORC only 1-2 days prior to Survey Day. If the school required a Make-up Day to be held, conversion attempts were made. In most schools, though, no Make-up Day sessions were held.

TABLE 1-4B
PERMISSION DENIALS - HIGH SCHOOL COHORT

	CATHOLIC	PRIVATE	PUBLIC	TOTAL
10th grade				
IMPLIED CONSENT				
denials	3 (1.3%)	2 (1.4%)	20 (2.7%)	25 (2.2%)
eligible	233	143	743	1119
EXPLICIT CONSENT				
denials	NA	7 (12.1%)	11 (4.8%)	18 (6.3%)
no forms		2 (3.5%)	151 (52.4%)	153 (44.2%)
eligible		58	288	346
TOTAL				
denials	3 (1.3%)	9 (4.5%)	31 (3.0%)	43 (2.9%)
eligible	233	201	1031	1465
12th grade				
IMPLIED CONSENT				
denials	5 (2.2%)	6 (4.4%)	29 (4.0%)	40 (3.6%)
eligible	233	137	729	1099
EXPLICIT CONSENT				
denials	NA	9 (15.0%)	17 (5.8%)	23 (6.5%)
no forms		0 (0.0%)	182 (62.1%)	182 (51.6%)
eligible		60	293	353
TOTAL				
denials	5 (2.2%)	15 (7.6%)	46 (4.5%)	66 (4.5%)
eligible	233	197	1022	1452

1.5 Interviewer Recruiting and Training

Recruiting and hiring of the Team Leaders for each school was done by NORC's experienced Field Managers, under the supervision of a District Field Manager and the Central Office Staff. The Field

Managers first attempted to hire interviewers who had worked on the HS&B base year and first follow-up, since these interviewers had specific experience with education longitudinal studies and with group school administration of questionnaires and tests. They were able to hire 29 percent of their field staff with this experience. FMs then recruited other interviewers experienced in group interviewing or testing of young people, either through other NORC studies such as Profiles, or through studies done by other companies. Twenty-four percent of the Team Leaders hired reflected that level of experience. The FMs then recruited other NORC interviewers who did not have experience on group administrations. Again, 24 percent were hired at this level. Finally, the FMs recruited outside the NORC interviewer pool. When possible, they hired former teachers or others with similar relevant skills. Of the remaining 23 percent, 14 percent had previous teaching experience. A special point of interest (to be addressed in Chapter 2) was whether all four groups of interviewers would prove equally successful in conducting the field work.

As Team Leaders were hired they were assigned to specific schools. Each Team Leader was responsible for approximately four schools. Since school contacting was still occurring at this time, some Team Leaders were assigned tentatively to schools. If a particular school did not participate or if more schools were added after hiring, the Team Leaders were reassigned to the new schools. Care was taken when scheduling schools to limit the number scheduled for the same day. Once an interviewer had been hired for the Team Leader position, s/he was sent project specific training materials. NORC has used self-study training with interviewers in many studies and it has proven to be a reliable and inexpensive training technique. The training materials were developed jointly by the central office and the field, combining the expertise into a comprehensive project-specific manual. These materials were all reviewed and approved by the CES project officer.

Training materials included discussions of all aspects of the study and the expected role of the Team Leader. Included among the more standard sections were sections on the special aspects of dealing with eighth graders, the overall objectives of a longitudinal study, and the procedures for hiring clerical assistants. At the end of each section, a summary listed the major themes and guidelines. The manual also included a set of self-tests designed for Team Leaders to test their own knowledge of the material. Instructions were included to review any material incorrectly answered in the self-tests. Once the Team Leaders had gone through the training and self-tests, they would contact their Field Managers. The Field Managers would then review the materials and test the Team Leaders using questions designed to insure that all Team Leaders were adequately trained to go into the schools. These questions dealt both with issues of procedure and with challenging situations that might arise in schools.

Team Leaders were also instructed to hire their own Clerical Assistants to assist them in the schools. These Clerical Assistants had the responsibility of giving general clerical support to the Team

Leader. Included were tasks such as passing out questionnaire booklets and tests, and completing the critical item edit during the testing session. Team Leaders were encouraged to hire people they knew personally, such as husbands, children, other relatives, or good friends. All potential Clerical Assistants had to be approved by the Field Managers. Once Clerical Assistants had been hired, they were given a small manual explaining what their duties would be and how to do a critical item edit. The training was not expected to take more than an hour. Team Leaders were instructed to test the Clerical Assistants to make sure they understood their responsibilities and the procedures. The Clerical Assistant materials included a section on confidentiality and its role in survey research. They were instructed to read and sign the NORC confidentiality statement. Team Leaders were instructed to review the importance of confidentiality with them.

CHAPTER 2: STUDENT DATA COLLECTION

2.1 Overview

This chapter describes student data collection procedures--and assesses their success. Data collection activities aimed at other respondents, such as teachers and school administrators are discussed in subsequent chapters. This discussion of student data collection follows two main paths. The first is an examination of student response rates. The second is a description of field test procedures for recruiting and training the data collectors, and of procedures for conducting the orientation, survey, and make-up sessions.

Within-school student response rates offer one perspective from which to judge the success of survey procedures; they are also useful in evaluating the Orientation Day experiment, which sought to determine whether holding an orientation session would positively influence student participation or in other ways contribute to the success of the student survey. Eighth, tenth, and twelfth grade response rates are reported, as well as response rates for Orientation Day and no Orientation Day schools. Response rates, both for the total eighth grade population and for the two groups of schools in the orientation experiment, are also broken down and examined by sample ethnicity (Core, Hispanic, Asian-Pacific Islander), school sector (public, Catholic, other private) and by region (the five field test states, and New York City).

These procedures and events are assessed in terms of information and judgments gathered in debriefings of the School Coordinators, Field Managers and Team Leaders, and NELS:88 project staff, as well as in written reports of CES observers.

2.2 Individual Response Rates

2.2.1 Eighth Grade Cohort

The overall completion rate for the eighth grade was 92 percent. Although a maximum of 32 students were drawn per school, the final sample size averaged 30 eligible students per school, of which an average of 27.6 participated. This is attributed to sample attrition and inclusion of schools with fewer than 32 eighth graders.

The following discussion will report participation rates for the eighth grade cohort of the field test in further detail. Completion rates by the sampled groups, according to ethnicity as annotated on the student roster, will be compared, then participation rates across the school types (public, Catholic and other private sectors) will be addressed. Ethnicity and school sector are also considered in the analysis of the results for schools participating in the Orientation Day session against those schools with no Orientation Day session. Participation by region is given as well. (Participation rates are reported for each of the five NELS:88 field test states. However, New York City public eighth grades were calculated separately to show how they differed from the rest of New York State.) Finally, a list of completion rates by individual schools is included.

2.2.1.1 Completion Rates, Sampled Groups, Orientation Day versus No Orientation Day

The students for the NELS:88 field test were drawn from three ethnically distinct sample types: Asian-Pacific Islander (API), Hispanic (HIS), and core (see section 2.1). Response rates are first presented for these groups. Two questions are posed in this comparison: Were there significant differences in response rates among the three populations? Did the Orientation Day session have more impact on the Survey Day participation of any one of these groups than on the others?

There were 119 eligible API students, 215 eligible HIS students, and 1,196 eligible core students (as designated on the sampling roster provided by schools), for a total of 1,530 eligible eighth grade students. Table 2-1 shows completion rates for the three groups of students where an Orientation Day in the school was not held versus where an Orientation Day was held, and the overall completion rates for these three groups, regardless of their participation in an Orientation Day.

The Orientation Day appears to have had a small positive effect for Asian-Pacific Islanders. Of the 119 eligible API students, 71 of these students had no Orientation Day and 63 of these students, or 88.7 percent, completed questionnaires and tests on Survey Day. Of the 48 eligible API students in schools where an Orientation Day session was held, 44 students, or 91.7 percent, completed questionnaires and tests. The overall completion rate for the Asian Pacific-Islander group as shown is 89.9 percent.

Orientation Day seems also to have had a modest positive effect on Survey Day attendance for Hispanic students. There were 215 eligible Hispanic students for the NELS:88 field tests and 90.7 percent of these students participated in the NELS:88 field test. Some 110 of these students were in schools with no Orientation Day and 105 students were in schools that held an Orientation Day session. The completion rates for Orientation Day versus no Orientation Day were 92.4 percent and 89.1 percent respectively.

As with the OBEMLA supplementary students, Orientation Day seemed to have had a modest positive effect for students in the Core sample as well. Of the 1,196 core students the overall completion rate was 92.5 percent. For the core students in Orientation Day schools the completion rate was 94.2 percent. For the core students in schools with no Orientation Day the completion rate was 91.7 percent.

We can see that there is a difference in participation--albeit small--between core, API, and Hispanic students. The API and Hispanic students had approximately a 90 percent participation rate, which was slightly lower than the 92 percent participation rate for core students. We can also see from Table 2-1 that Orientation Day has

TABLE 2-1

EIGHTH GRADE
PARTICIPATION BY SAMPLED GROUPS
NO ORIENTATION DAY VS. ORIENTATION DAY

		FinNIR	QxCom	Absent	N eligible	Completion Rate
OBEMLA						
API	No ODay	4	63	4	71	88.7%
	ODay	2	44	2	48	91.7%
Sub-Total		6	107	6	119	89.9%
HIS	No ODay	6	98	6	110	89.1%
	ODay	3	97	5	105	92.4%
Sub-Total		9	195	11	215	90.7%
CORE	No ODay	40	750	28	818	91.7%
	ODay	10	356	12	378	94.2%
Sub-Total		50	1106	40	1196	92.5%
TOTAL ALL STUDENTS		65	1408	57	1530	92.0%

FinNIR - Final Non-Interviewed Respondent
QxCom - Questionnaire Complete

approximately the same effect on all of the groups--namely, there was a slight increase participation for all types of students, API, HIS and core, where the school held an Orientation Day. (See Section 2.3.5 for a more detailed analysis of Orientation Day issues.)

It should be noted that this discussion of ethnicity and completion rates is based the ethnicity coded by the School Coordinators at the time the student roster was prepa In Chapter 3 we compare roster (school-reported) and questionnaire (self-reported) ethnicity and report their degree of correspondence.

2.2.1.2 Completion Rates: School Type, Orientation Day versus No Orientation Day

The NELS:88 field test school sample was made up of three school types: Catholic, other private, and public schools. The following discussion and Table 2-2 will compare participation in these three school sectors with and without Orientation Day sessions.

There were 117 eligible eighth graders who attended Catholic schools that had no Orientation Day. The participation rate for these students was 99.1 percent. Fifty-four students, 94.7 percent, were surveyed in Catholic schools that did hold an Orientation Day session. The completion rate for all Catholic students was 97.7 percent.

Of the 138 eligible students in other private schools where there was no Orientation Day, 111 students, 80.4 percent, completed questionnaires and tests. The completion rate for the 46 eligible students attending other private schools that held an Orientation Day was 95.7 percent. The completion rate for all other private eighth grade students was 84.2 percent.

In public schools that did not hold an Orientation Day session, the completion rate was 91.9 percent. In public schools that had an Orientation Day the participation was 93.2 percent. The participation for all eighth graders attending public schools was 92.5 percent.

Overall, the effects of Orientation Day appear to be marginally positive. However, when these effects are broken down by sector, it appears that for public schools there was a very small (just over 1 percent) participation advantage for Orientation Day. For Catholic schools, attendance was actually 5 percent higher in schools that did not have Orientation Days. This negative Orientation Day effect for the Catholic sector was unanticipated. In other private schools, however, Orientation Day participation was a dramatic 15 percent higher than in schools where no Orientation Day took place.

These generalizations for the private sector must be qualified by the small number of schools on which they are based (two Catholic Orientation Day schools and two other private schools with Orientation Day). And indeed, it is surprising that the effect of Orientation Day appeared to be negative for Catholic schools. We have no way to explain this outcome and suspect that in a much larger Catholic sector sample, this relationship would not hold. Certainly in the public sector as a whole, the positive effect of Orientation Day appears to be

TABLE 2-2

EIGHTH-GRADE
PARTICIPATION BY SCHOOL TYPE
NO ORIENTATION DAY VS. ORIENTATION DAY

	FinNIR	QxCom	Absent	N eligible	Completion Rate
SCHOOL TYPE					
Catholic					
No ODay	0	116	1	117	99.1%
ODay	2	54	1	57	94.7%
Sub-Total	2	170	2	174	97.7%
Private					
No ODay	20	111	7	138	80.4%
ODay	0	44	2	46	95.7%
Sub-Total	20	155	9	184	84.2%
Public					
No ODay	30	684	30	744	91.9%
ODay	13	399	16	420	93.2%
Sub-Total	43	1083	46	1172	92.5%
TOTAL ALL STUDENTS	65	1408	57	1530	92.0%

FinNIR - Final Non-Interviewed Respondent
QxCom - Questionnaire Complete

so small that the cost of an orientation session may not be justified in terms of increased Survey Day attendance alone. However, the extremely large field test impact of Orientation Day on the other private sector suggests that there may be situations, identifiable in advance by school type, where Orientation Day can be expected to have an atypically large positive effect on participation.

2.2.1.3 Participation: By State

The following table shows participation of eighth grade students by field test state. New York City public schools have been calculated separately from the rest of New York State. The New York City participation rate is almost ten percent lower than the rest of the state. We expected a lower participation rate in New York City because explicit permission was required by all public schools. In fact, the rate of 86.5 percent that was achieved in the New York City public eighth-grade schools was higher than expected. This is probably due to the fact that the School Coordinators for these public schools were very cooperative--perhaps atypically--and helped tremendously in tracking parental permission, repeatedly sending home additional permission forms when the originals were not returned. It is difficult to know to what extent this limited experience of New York City eighth graders can form the basis for a generalized expectation about New York City in the base year. The extremely poor participation rates for New York City High Schools (see 2.2.2 below) introduces a note of caution into expectations about levels of participation in that locale.

TABLE 2-3

PARTICIPATION BY STATE

State	CA	FL	IL	NYC	NYS	TX	TOTAL
eligible N	443	249	261	89	183	305	1530
completed N	396	235	246	77	175	279	1408
completion rate	89.4%	94.4%	94.3%	86.5%	95.6%	91.5%	92.0%

TABLE 2-4
EIGHTH GRADE SCHOOLS - COMPLETION RATE

School ID	Completion Rate
36	100.00%
67	100.00%
49	100.00%
31	100.00%
68	100.00%
53	100.00%
50	100.00%
40	97.44%
52	97.06%
28	96.97%
42	96.88%
41	96.88%
01	96.88%
12	96.77%
08	96.77%
06	96.67%
76	96.67%
30	96.55%
26	96.55%
03	96.55%
13	96.30%
14	96.30%
69	96.15%
51	94.12%
39	93.75%
27	93.75%
25	93.75%
56	93.55%
71	93.55%
43	93.55%
77	93.33%
04	93.33%
07	90.63%
38	90.63%
70	90.63%
24	90.63%
83	90.63%
29	90.63%
73	90.00%
75	90.00%
10	87.50%
72	87.50%
05	86.67%
54	85.71%
37	85.71%
02	85.11%
11	84.38%
59	81.25%
74	81.25%
55	80.00%
09	50.00%

2.2.1.4 Completion Rates: By School

Summary and Conclusions, Eighth Grade Schools

Table 2-4 shows completion rates by eighth grade school.

The majority of eighth grade schools experienced very high attendance on Survey Day--on average, 26 students. Only 14 schools, 27 percent, required Make-up Days with the average Make-up Day attendance being 4 students. Generally, it appeared that School Coordinators had more control over the eighth graders than over high school students--if permission was not denied and if they were not absent, the students were at the survey session. (Note: School ID #09 was an Other Private school. The 50 percent participation rate was due to parental permission being denied to half of the students.)2.2.2 High School Cohort

In order for ETS to calibrate the cognitive test batteries, approximately 1,000 tests were desired from the tenth grade cohort as well as the twelfth grade cohort. In the field period 1,126 sophomores and 969 seniors were surveyed and tested. As noted in section 3.3, one box of completed questionnaires and tests from a high school was lost in the mail. The completion rates below are calculated including the numbers of questionnaires in the lost box since we can document the completion rate at the school whose materials were lost from the completed transmittal form provided by the Team Leader. Even taking into account the lost materials, enough sophomore tests were obtained during the field period. The low participation rate of seniors and the loss of materials from one school necessitated a special session for seniors in Chicago in which an additional 48 tests were obtained. Counting the special session, 1,017 twelfth graders were surveyed.

2.2.2.1 Participation: Tenth Grade by State

The following table shows participation of tenth grade students by field test state. New York City public schools have been calculated separately from the rest of New York State.

TABLE 2-5

TENTH GRADE PARTICIPATION BY STATE

State	CA	FL	IL	NYC	NYS	TX	TOTAL
eligible N	436	226	177	112	286	287	1524
completed N	290	192	148	24	241	236	1131
completion rate	66.5%	84.9%	83.6%	21.4%	84.3%	82.2%	74.2%

2.2.2.2 Participation: Twelfth Grade by State

The following table shows participation of twelfth grade students by field test state. New York City public schools have been calculated separately from the rest of New York State.

2.3 Data Collection Procedures

Field Test Data Collection

The following section provides an outline and assessment of the personnel, structures, forms, and procedures used in field test data collection. The training, characteristics, and performance of the field staff are important considerations in the conduct of the field test and are assessed here. In addition, two supervisory structures were utilized during the field period; some advantages and disadvantages of each structure are enumerated. A detailed presentation of the procedures used in each of the major contacts with the school after the securing cooperation phase, and an assessment of the effects of those contacts, are provided. Lastly, the procedures and effects of the Orientation Day experiment involving twenty eighth grade schools are examined.

TABLE 2-6

TWELFTH GRADE PARTICIPATION BY STATE

State	CA	FL	IL	NYC	NYS	TX	CHICAGO SPECIAL SESSION*	TOTAL
eligible N	427	221	160	117	290	293		1508
completed N	244	156	122	15	213	219	(48)	969 (1017
completion rate	57.1%	70.1%	75.6%	12.8%	73.5%	74.7%		64.1

* Not used in calculation of response rate.

2.3.1 Field Personnel

Team Leader Performance

Overall, interviewers were highly regarded by their NORC supervisors and the School Coordinators. The vast majority of Team

Leaders were able to perform in an exemplary manner. Discussions with school personnel regarding one Team Leader recruited from outside of NORC revealed difficulties in the Team Leader's ability to maintain the interest and enthusiasm of students in a group situation. This Team Leader was phased out of the project. Still, while Team Leaders possessed various backgrounds — HS&B experience, group survey administration experience, or teaching -- all groups performed well.

After the close of field activities, we debriefed a sample of twenty-four eighth-grade School Coordinators. During the debriefing we asked each of the coordinators to assess the conduct of our Team Leaders on Survey Day. The responses are listed below, in Table 2-7:

TABLE 2-7

SCHOOL COORDINATOR'S ASSESSMENT OF TEAM LEADER ON SURVEY DAY

	Good	Great	Fair	Poor	School Coordinator Didn't Stay	Total	% Rated Great & Good of Those Who Stayed
Introduction	4	9	2	0	9	24	86.7%
Enthusiasm	7	11	4	0	2	24	81.8%
Keeping students interested	5	5	3	1	10	24	71.4%
Explanation	4	5	3	0	12	24	75.0%
Communicating with SC	12	9	0	3	0	24	87.5%
Total	32	39	12	4	33	120	
% of those who stayed	36.8%	44.8%	13.8%	4.6%			81.6%

Team Leader attrition was also kept to a minimum--only two of the twenty-two interviewers initially hired for the project were unable to continue. It is worth noting that both of these Team Leaders left the project before training had begun in earnest, so that costs for training these Team Leaders were not incurred. In point of fact, expressed as a percentage of Team Leaders that actually were trained for NELS:88, the attrition rate was zero percent.

Clerical Assistant Performance

One experimental feature of the field test was the use of a Clerical Assistant on the survey team. For HS&B, survey teams were composed of two field interviewers. For the NELS:88 field test, each survey team was composed of a Team Leader and a Clerical Assistant. The Clerical Assistant was responsible for the critical item edit; the Team Leader was responsible for accomplishing all other tasks assigned to the survey team, including hiring and directly supervising the Clerical Assistant. Over the course of the field period, close attention was paid to qualitative assessments of Clerical Assistant performance, the Team Leader-Clerical Assistant relationship, and information gathered by the in-house check of the critical item edit. At issue was the ability of Team Leaders to hire their Clerical Assistants in consultation with their Field Managers, the possibility of locating suitable candidates for the Clerical Assistant position, and the level of monetary inducement necessary to secure qualified personnel.

Team Leaders in New York City encountered difficulty in finding Clerical Assistants and retaining them throughout the field period. One New York City Team Leader solved this problem by hiring an NORC interviewer, suggesting a strategy that might be applicable for certain situations. Two other Team Leaders in New York shared a Clerical Assistant. This arrangement did not work as well; none of the three were pleased with the work situation. Given that one of the major advantages of the Team Leader-Clerical Assistant structure is that the Team Leader is able to hire, in consultation with the Field Manager, a person with whom the particular Team Leader would like to work, and given that this hiring decision contributes to the stability of role delineation, it seems unwise for Team Leaders to share Clerical Assistants. This assessment is supported by Team Leader appraisals of their relationship to their Clerical Assistant.

At all other sites Team Leaders had no particular difficulty in hiring and retaining the services of a qualified Clerical Assistant throughout the field period. In many cases, daughters or spouses of Team Leaders served as their Clerical Assistants. This arrangement facilitated the provision of overnight accommodations where necessary.

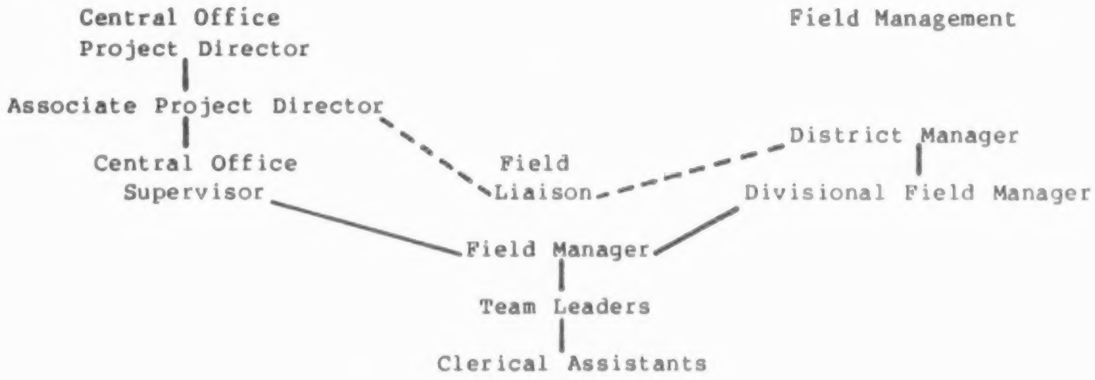
There were no reports of difficult Team Leader-Clerical Assistant relationships, with the exception of the shared situation discussed above. On the contrary, Team Leaders reported that they found it easy to work with their Clerical Assistants. Most Team Leaders reported no difficulty in maintaining the delineation of roles. Indeed, one advantage of Team Leader-Clerical Assistant teams is the resultant consistent preservation of clearly defined hierarchical roles and responsibilities. In addition, Team Leaders reported no deficiencies regarding the protection of respondent confidentiality. They were able to emphasize the importance of maintaining confidentiality for all respondents, and to set the tone for their Clerical Assistant by their own example.

The success of the Clerical Assistant is evidenced also by examinations of the critical item edit. From the in-house check of the critical item edit, it seems that Clerical Assistants were able to edit with acceptable levels of error. The rate of Type A errors--errors with an implication for data quality--was 1.12 errors per case. On the face of it, an error rate of more than one per case is high, but the rate must be assessed in the light of the opportunities for error. For every case there were twenty-one critical items, which means that on average the Clerical Assistant made 0.053 errors for each item inspected. Even this error per item inspected statistic does not take account of the multiple opportunities for error within some of the critical items. For example, the question that asks for the respondent's name, address, and telephone number counts as one item, whereas the actual number of opportunities for error is equal to the number of data elements under inspection--namely eleven. Considering the number of data elements inspected per case (77), the Clerical Assistant error rate is 0.0145 errors per data element edited. Thus, it is our assessment that the Clerical Assistants were able to conduct the critical item edit successfully. The critical item edit and the in-house edit are discussed in further detail in section 3.2.

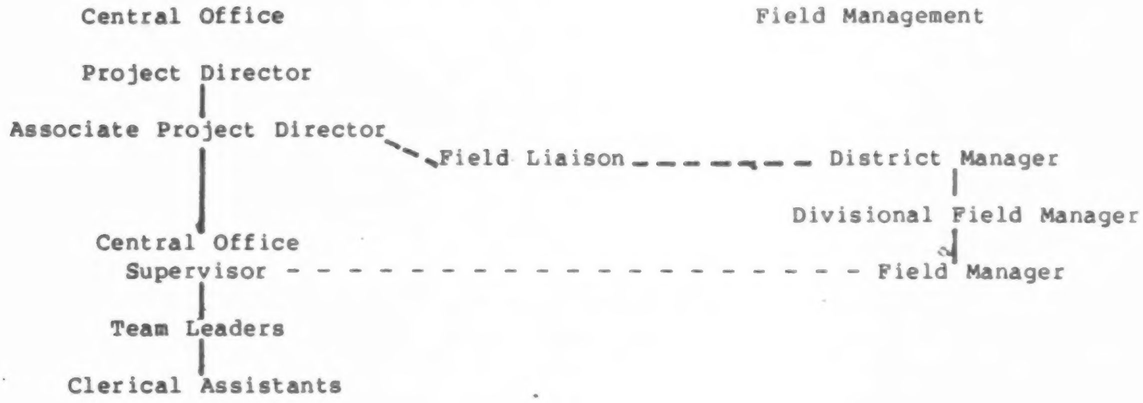
2.3.2 Reporting and Supervisory Structure

During the field test, we employed two different structures for field supervision, in an effort to determine the advantages and disadvantages of each. Each state was staffed with three to five Team Leaders and Clerical Assistants reporting to either a Field Manager or a Central Office Supervisor. The structures are diagrammed below; solid lines indicate supervisory relationships and broken lines indicate consultative relationships.

Structure A


Central Office
Project Director
Field Management
Associate Project Director
District Manager
Central Office
Supervisor
Field
Liaison
Divisional Field Manager
Field Manager
Team Leaders
Clerical Assistants

Structure B


Central Office
Field Management
Project Director
Associate Project Director
Field Liaison
District Manager
Divisional Field Manager
Central Office Supervisor
Field Manager
Team Leaders
Clerical Assistants

The Office of Field Coordination and Management has its own structure independent of the project. Structures A and B vary in terms of the Central Office rol̀e in the management of the field.

Structure A: Field Manager Primary Supervisors

Structure A, diagrammed above, was utilized in New York, Illinois and California. In these states the Central Office Supervisor dealt almost exclusively with the Field Manager, who trained and assigned Team Leaders, and handled queries and took reports. Field Managers handled routine questions while relaying any unanticipated queries or anomalies to the Central Office Supervisor (one of three NELS:88 Assistant Survey Directors). These queries were usually project-specific in nature; the Field Manager was able to answer questions concerning general field procedures and problems. In addition, the Field Manager passed along both individual (Team Leader-level) and summary (state-level) cost and production information to the Central Office Supervisor. This was an efficient and effective arrangement, because the lines of communication were clear and well-established. By charging the Field Manager with the assignment of schools and the assessment of Team Leader performance, the project was able to quickly redirect personnel in light of project needs and Team Leader capabilities.

Structure B: Central Office Primary Supervisor

In two states (Florida and Texas) structure B, also diagrammed above, was utilized. In these states the Central Office Supervisor handled queries and took reports from the Team Leaders directly. The Field Manager was responsible for assigning schools and training Team Leaders. This structure of field supervision enabled the Central Office to provide updated permission status reports to Team Leaders immediately prior to Survey Day. Similarly, the direct line to the Central Office allowed for immediate clarification of any misunderstandings that might arise. Central Office Supervisors were able to consult with a Field Manager concerning general field procedures as needed.

Conclusion

The field test suggests that either structure would prove viable for the base year. Structure A calls for more field control, and many surveys at NORC use just such a structure. Since Structure A results in more field control, a premium is placed upon the development and utilization of a strong memo system to facilitate and document Central Office and supervisory field staff communication. The advantages of Structure B accrue with the need to rapidly respond to project-specific difficulties experienced by Team Leaders; communication under such a system will rely more upon telephone contact between Central Office and Team Leaders. Both structures were sufficiently successful during the field test to warrant optimism regardless of which procedure is selected.

2.3.3 Adequacy of Materials and Forms

Three types of forms were developed for the field test: advance written materials to schools, materials and forms for field staff use, and materials and forms for central office use. A list of each of the forms is provided (see List of Appendices).

Advance written materials to the schools were devised to aid the School Coordinator in fulfilling the project needs at the school. These forms will be revised for the base year on the basis of School Coordinator debriefings, and Team Leader and Central Office comments and critiques. In addition, a School Coordinator Manual will be developed to provide a central source to which School Coordinators may refer.

We generated a number of forms both to assist Field Managers and Team Leaders in coordinating survey activities in the field and to facilitate Central Office control over and response to field activity. During the materials development process, the Field Liaison reviewed and revised these materials. These forms will be revised for the base year; field staff feedback from all levels will be considered during this process, and the Field Liaison will again play a substantial role in reviewing materials.

2.3.4 Mailout and Return Procedures

As early as five weeks prior to Survey Day, student packets were mailed to the school for distribution to survey participants. The student packets included a cover letter explaining NELS:88 and urging student participation (see List of Appendices), a NELS:88 brochure explaining the aims of the study, a brochure outlining the types of data collection conducted by NORC, and, when necessary, relevant consent forms (implicit or explicit) with instructions for filling them out and returning them to NORC or the School Coordinator as appropriate (see List of Appendices). It should be noted that in all cases students were instructed to give the cover letter to their parents. This letter outlined procedures for denying permission for their child to participate.

Materials that were used for survey administration on Orientation Day and Survey Day were mailed to arrive at the schools approximately two weeks prior to the scheduled dates of these events. Orientation Day materials included a separate invitation to Orientation Day with time and place designated, a NELS:88 brochure (same as above) a NORC brochure (same as above), and a student class schedule form (see List of Appendices). The student class schedule form informed the Team Leader of the whereabouts of the student on Survey Day should the student need to be located. For the most part, Survey Day materials included Survey Day invitations, student questionnaires, cognitive test booklets, pencils, time clocks, batch transmittal forms, and in some cases parent questionnaires. In addition, NORC mailed to the homes of all twenty-two Team Leaders enough extra supplies to cover one complete Survey Day administration at both the eighth grade and high school level. These extra materials safeguarded the Team Leaders against misplacement of survey materials by school personnel.

School Coordinators suggested one significant change in the mailing procedures. They suggested that NORC mail invitational materials under separate cover. Many School Coordinators were wary of opening NORC materials without the presence of NORC personnel. Thus, in some cases students did not receive the invitational materials until the day of the event. This change will most certainly be effected in base-year mailings.

After a survey session was completed, Team Leaders were instructed to mail questionnaires, test booklets, and completed batch transmittal forms to NORC. These materials were boxed at the school and taken to the post office immediately after the completion of the survey session. In cases where a Team Leader could not reach a post office before closing, she was instructed to mail the materials no later than the following morning. All materials were mailed First Class to NORC. Of seventy-seven boxes of survey materials returned to NORC, seventy-five were safely received and two were lost in the mail.

2.3.5 Adequacy of Survey Procedures

Standardized procedures were developed for activities and contacts after the conclusion of the securing cooperation phase. For purposes of analysis, these school contacts fall into four different categories: Preliminary telephone contacts, Survey Day, Make-up Day, and Orientation Day.

The aims of each of these contacts were quite specific. Preliminary contacts with the school served to introduce the Team Leader to the School Coordinator while providing an opportunity to confirm matters such as date, time, and location of Survey Day activities. These matters would already have been arranged by the Central Office. Survey Day itself would be the primary visit of the Team Leader for data collection. Make-up Day would provide an opportunity for a second visit if the Survey Day response rate was insufficient, i.e., below 93 percent for eighth-grade schools, or below ninety students for high schools. Lastly, Orientation Days were conducted in a sample of twenty eighth grade schools as an experiment. Each of these different types of contacts has independent criteria of assessment based upon its particular aim.

Actors from many different levels and publics were involved, either as participants or observers, in these activities and contacts. Consequently, the qualitative assessment of procedures draws from various sources, chiefly School Coordinators, Field Managers, Team Leaders, and Center for Education Statistics observers.

2.3.5.1 Preliminary School Contacts: Outline and Assessment

After training, the Team Leaders were supplied with supporting materials for their assigned schools. Supporting materials included fact sheets providing relevant information, such as the name and phone number of the School Coordinator, the day, time, and location of Survey Day, and similar information. Team Leaders were also given scripts and a schedule of calls to make to the School Coordinator. These calls aimed at verifying the arrival of survey materials and the dissemination of invitational materials. Team Leaders were able to begin contacting schools with early Survey Days during January, shortly before the field period began.

In some cases the transition of schools from Central Office control to field responsibility did not go entirely smoothly. Often, these problems were the result of difficulties encountered during the school contacting phase. For example, some schools were unwilling or unable to schedule a room for Survey Day during the securing cooperation phase. Thus, the school would need to be recontacted in the early portion of the field period, and questions arose as to responsibility for this interstitial contact. In the base year, responsibility will be clearly delineated throughout the securing school cooperation contact phase, which should facilitate the transition of responsibility to the field.

2.3.5.2 Survey Day: Outline

Team Leaders arrived at the school approximately thirty to forty-five minutes prior to the scheduled commencement of Survey Day activities. They contacted the School Coordinator, and transported bulk materials stored at the school to the room scheduled for Survey Day. With the assistance of the School Coordinator, the Team Leader gathered the sampled students. The Team Leader and Clerical Assistant took attendance and assigned seating.

Many School Coordinators introduced the Team Leaders at that point. Team Leaders then read the written script. The script detailed some of the purposes of the study, provided assurances of confidentiality, and informed participants of the voluntary nature of the study. In addition, the types of questions within the questionnaire were discussed. Team Leaders then handed out the locator and questionnaire booklets. Locator booklets were not used at the high school level.

During the administration of the questionnaire materials, Team Leaders spoke with the School Coordinator in an effort to ascertain the enrollment status of absent students. Also in the eighth grade schools Team Leaders used this time to collect or distribute the Teacher and School Questionnaires, depending upon whether or not materials had been distributed by the School Coordinator. Respondent queries concerning items on the student questionnaire materials were fielded by the Team Leader, unless the Team Leader was otherwise occupied and felt that the Clerical Assistant was qualified to answer respondent queries. Even in this circumstance the Clerical Assistant was only allowed to re-read the question and to direct all unresolved queries to the Team Leader. For most situations survey personnel were instructed simply to re-read the question to the student; no one was permitted to provide interpretations of the questions.

At the conclusion of the survey administration, and with the permission of school authorities, a snack was provided for the students. Afterwards, the timed cognitive test battery was introduced and administered. During the test administration, the Clerical Assistant conducted the critical item edit. The sheer quantity of items typically needing retrieval--the retrieval rate was on the order of one question per case--necessitated an adjustment in the plan for retrieval. (The retrieval rate is discussed in detail in section 3.2.) During training Team Leaders had been instructed to commence retrieval at the conclusion of the test administration. But the early completion of the test by some students provided an opportunity to begin retrieval prior to the end of the time period allotted to the tests. The critical item edit and the retrieval were not conducted in the high schools, where the questionnaire was included only as a simulation of testing conditions.

At the conclusion of the retrieval process the School Coordinator took responsibility for sending students back to class. In designated schools Team Leaders distributed the Parent Questionnaire to students just prior to dismissal. In these cases students were instructed to take the Parent Questionnaire home to the parent that knew the most about their schooling. The Team Leader and Clerical Assistant straightened up the room, counted and organized survey materials, filled out the transmittal form, and determined whether or not there was a need for a Make-up Day. Make-up Days were indicated in eighth-grade schools with less than 93 percent response rates, not counting students that had transferred out of the school, or in high schools with fewer than ninety students completing the test battery. If there was a need for a Make-up Day, the School Coordinator was contacted to confirm the continued availability of the previously scheduled Make-up Day. In the base year the investigation of missing students will also entail determination of age, sex, and race and ethnicity information.

2.3.5.3 Survey Day: Assessment

Generally, Survey Days went smoothly. Still, problems were identified. Team Leaders reported that the scripts were too long, basing their inferences on the apparent disinterest and impatience of the students during the presentation. Scripts also provoked a number of high school students to request permission to leave the survey session; after repeated emphasis on the voluntary nature of their participation they decided they did not want to take part in the survey.

Other than their possibly excessive length, the scripts were sufficient for the eighth graders. We will shorten and tighten the script for the base year. According to some observers from the Center for Education Statistics, the introductory scripts seemed overly emphatic concerning the important issue of confidentiality. Observers suggested that the issue of confidentiality, in addition to the issue of voluntary participation, need be mentioned only once, rather than three times.

The snack was a considerable success at the eighth-grade level, and will be incorporated into the base year procedures. Team Leaders reported that the students looked forward to the snack, and that it did not cause appreciable difficulties in maintaining the schedule.

As noted above, the retrieval was begun during the latter portions of the test administration. According to Team Leader reports, the retrieval did not disturb other students taking the test. Still, it is worth noting that in the base year the conditions under which the retrieval was conducted will change. For example, revision of some of the high retrieval items may lower nonresponse. More important still, the base year questionnaire will be shorter. The test, however, will also be shorter, thus decreasing the amount of test time available for the critical item edit. All of these factors will need to be weighed in planning Survey Day activities for the base year.

In New York, the inclusion of a New York State Supplement Questionnaire made it more difficult to complete all survey materials in the time allotted. In the base year, survey instruments will be somewhat shorter. Except for the case of New York, and the adjustments to the retrieval process, however, reports from the field indicate that sufficient time was allotted for each of the instruments and tasks of Survey Day.

2.3.5.4 Make-up Day: Outline and Assessment

Fourteen Make-up Days were held in the fifty-one eighth-grade schools. In six cases Team Leaders returned to conduct Make-up Day activities, following the procedures as outlined for Survey Day. The remainder of the Make-up Days involved fewer than five students and therefore were conducted by school personnel. In these situations, Team Leaders instructed school personnel concerning administration of the questionnaire and cognitive test battery, and ways in which to preserve respondent confidentiality. In addition, school personnel were provided with a postage-paid return envelope to mail materials back to NORC. To further guard respondent confidentiality, the critical item edit and in-school retrieval were not conducted in Make-up Day sessions administered by school personnel.

In two cases eighth grade School Coordinators did not conduct Make-up Day after agreeing to do so. In both cases the school calendar intervened to cancel formerly scheduled Make-up Days. In addition, often materials were quite late in arriving from School Coordinator-conducted Make-up Days. These delays were sometimes justifiable. For example, one School Coordinator held two Make-up Days in order to administer the questionnaire and tests to a child who had been sick. This School Coordinator understandably delayed mailing the first batch of completed Make-up Day questionnaires and tests to NORC. In other cases, we discovered upon prompting them that School Coordinators had forgotten what to do with the material. This again argues for the development of a School Coordinator Manual to guide them through all activities in addition to regular call-back procedures.

Fourteen Make-up Days were held at the high school level, and twelve of these required the presence of the Team Leader. In two cases the School Coordinator agreed to conduct the session for a small number of students who missed the Survey Day. In either case, the same procedures used during Survey Day were followed.

2.3.5.5 Orientation Day: Outline and Assessment

Orientation Days were scheduled in a sample of twenty eighth grade schools, in an effort to test the effect of Orientation Day upon participation and on administration of the survey. Orientation Days were actually conducted in seventeen schools; three schools that had agreed to Orientation Day were subsequently unable to schedule a convenient time. On Orientation Day the Team Leader made a presentation to the sampled students and gave them an opportunity to ask questions about the study. Students were also requested to fill out a student schedule form, to facilitate Team Leader follow-up of students tardy for Survey Day activities.

During the contacting phase, five schools were designated for multi-audience Orientation Days, to which both sampled students and their parents and teachers were invited. Of these five, one school was never contacted because of district refusal, one school declined to participate in any Orientation Day, one school refused a multi-audience event but was willing to hold a students-only Orientation Day, and the two remaining schools agreed to multi-audience Orientation Days.

Field staff had expressed some concerns about the challenge of introducing the study to such a heterogeneous group, since the disparateness of aims and levels of understanding in an assemblage of eighth graders, teachers, and parents might make it difficult to find a common level at which to communicate with and hold the interest of all parties. A further concern was that such a session might be more vulnerable to disruption or mishap, if, for example, an atypical but determined parent, unhappy with government research or with some particular aspect of the study, expressed vociferous objection in the presence of other parents, school personnel and the students. The effects of the multi-respondent structure cannot be assessed from the data obtained in the field test, owing to low parent and teacher Orientation Day participation. In fact, no invited parent attended the two multi-audience sessions, although one teacher did so.

Though their effect on participation was only marginally positive in most schools, Orientation Days served a number of additional functions. Student schedules were collected. These proved helpful primarily for large schools in which students regularly change classes. The schedules were of less value under other eighth-grade structures. Orientation Day provided Team Leaders with a valuable opportunity to learn about the school environment, meet school personnel and reinforce the commitment of principals and school coordinators, review with the School Coordinator the procedures for Survey Day, assess the adequacy of the facilities, and verify the arrival of NORC materials. Some Team Leaders felt that this early exposure to the school enabled them to correct potential problems and therefore to be better prepared for Survey Day. In well-organized schools advance visits possibly had less value, but in disorganized school environments they provided additional information and experience that could be put to good use in conducting a successful Survey Day.

In addition, some Team Leaders reported the reversal of some permission denials. In one eighth-grade school in New York City several students, not wanting to take part in the study, "misplaced" their permission forms. Consequently parents had not had an opportunity to learn about the study. On Orientation Day these students were presented with the reasoning behind the study, and all of them requested and were given new permission forms to take home to their parents.

Other cases of converted permission denials occurred, though none so dramatic as the New York City example. This phenomenon may be a result of parents denying permission in an effort to assent to their child's relatively uninformed desire to be excused from participating in the study. After Orientation Day, however, the student may be more willing to take part in the survey. It is quite possible that the student may be able to relay information to parents more readily after Orientation Day, bringing about a reversal of the permission denial. Students themselves may be more willing to participate after Orientation Day because they gain a better understanding of the purposes of the study, or because their fears have been allayed, or because of group bonding. Thus, the field test experience suggests that Orientation Days may have special value for explicit consent schools.

Team Leaders indicated that many questions were asked during the orientation session. Questions centered upon whether or not test scores would be placed on the students' record and what students would need to do to be excused from their regularly scheduled classes. Some Team Leaders also reported that students did develop a sense of camaraderie, which might have an impact on long-term participation in future years.

The immediate effect of Orientation Day on response rates for policy-relevant populations and different types of schools was reported in section 2.2. It seems that the Orientation Day is somewhat associated with a decrease in Make-up Days, as noted in the Table 2-8.

This comparison of the number of Make-up Days occurring in schools with an Orientation Day and schools without an Orientation Day reveals that there is a slight decrease in the number of Make-up Days in schools with an Orientation Day.

Section 2.2, Individual Response Rates, discussed the effect of Orientation Day for different groups of students. It seems that the Orientation Day evidenced a quite modest effect upon participation rates for core, Asian-Pacific Islander, and Hispanic students. The effect of Orientation Day did not greatly differ between groups--it had approximately the same modest positive impact on each. Overall, participation increased approximately three percent in Orientation Day schools.

TABLE 2-8

MAKE-UP DAYS BY NO ORIENTATION DAY VS. ORIENTATION DAY

	Orientation Day	No Orientation Day	Total
Make-up Days			
Number	4	10	14
Column Percent	23.5	29.4	
Row Percent	28.6	71.4	100
No Make-up Day			
Number	13	24	37
Column Percent	76.4	70.6	
Row Percent	35.1	64.9	100
Total			
Number	17	34	51
Column Percent	100	100	
Row Percent	---	---	

Orientation Day effects on response rates in different types of schools were also examined in section 2.2. For some types of schools the difference is negligible. For other types, Orientation Day seems to have had a slightly negative effect, and for still others the effect seemed pronounced and decidedly positive.

For public schools, participation rates for schools with an Orientation Day are 1.3 percent better than participation rates for schools without an Orientation Day. This difference is negligible. For Catholic schools a decrease of 5 percent in the response rates for schools with an Orientation Day is observed. This decrease, however, is based on only two Catholic schools that had an Orientation Day, and therefore may not be a significant guide for base-year planning. Given that the non-Orientation Day Catholic schools had 99 percent attendance (contrasted to a robust 95 percent in the Orientation Day sites) the difference is more likely to reflect the vagaries of local health patterns on a given day than any characteristic of the orientation session.

For other private schools--a stratum of schools that posed special difficulties at both the securing school cooperation and obtaining parental permission stages of the process--the effect of Orientation Day is more pronounced. Other private schools with an Orientation Day had a participation rate 15 percentage points higher than that of other private schools without an Orientation Day. Though again the number of schools involved is small, the greater degree of the effect leads us to believe that this effect is a reasonably good basis for base-year planning of activities for other private schools.

We noted above a variety of functions the Orientation Day fulfilled, such as facilitating the acquisition of student schedules, providing intelligence about the school, permitting the facilities and arrival of survey materials to be checked, and enabling the Team Leader to forge a stronger personal relationship with the School Coordinator and the principal. There are additional functions that might be served by a pre-Survey Day visit to the school. For example, Orientation Day might be used to facilitate the permission tracking and sample update procedures. Orientation Day was used in HS&B to sample transfer-ins and effect substitutions of drop-outs and deceased students. Parent questionnaires might also be distributed on Orientation Day, to be returned on Survey Day. In a few cases during the field test, Team Leaders were able to use the Orientation Day for such purposes, thereby relieving the School Coordinator of some of the burden associated with permission and sample update procedures.

Schools themselves were surprisingly receptive to Orientation Day during contacting. We asked forty-four of the fifty-one sampled schools contacted whether or not they would be willing to have an Orientation Day. Some schools, added at the end of the securing cooperation phase as time grew very short, were not queried on their interest in having an Orientation Day. It was explained to the School Coordinators that we would draw a subsample of the willing schools for Orientation Day sessions. Thirty schools (68 percent) expressed their willingness to have an Orientation Day. Indeed, we planned to have an Orientation Day at only twenty of the schools, and many expressed disappointment when they were not scheduled for an Orientation Day. On the other hand, some schools that agreed to an Orientation Day subsequently found that there was no possibility of scheduling it on the already crowded school calendar.

Despite the possible advantages of Orientation Day for explicit consent, other private, and possibly certain hard-to-work schools, the overall effect on participation is small. Compared to the high school students case--judging from the evidence either of High School and Beyond in 1980 and 1982 or from the NELS:88 field test high schools--eighth graders have such high participation rates already that measures such as an orientation session can only have, in general, a marginal positive effect. Nevertheless, Orientation Day can play a considerable beneficial role in advance preparations for Survey Day, and we must seriously consider whether its value could be further enhanced by folding additional pre-survey activities into this initial school visit.

2.3.6 Data Receipt and Processing - Student Questionnaire

The Team Leaders were instructed to mail the completed questionnaires and tests to NORC after they had completed the survey at a school. In fact many Team Leaders took the boxes home to finish tallying and packing the box more securely for mailing.

Upon delivery of the box to NORC the receipt control clerk reconciled the enclosed questionnaires and tests with the transmittal form filled out by the team Leader to make sure no discrepancies existed between what was thought to be sent and what had been received.

The tests, and one copy of the transmittal form were put aside for future shipment to ETS. The questionnaires were given to the in-house edit clerk for a final edit after which they were sent on to data entry. (On the in-house edit, see Section 3.2 Student Questionnaire Data: Analysis and Proposed Item Revisions.) Owing to their restricted numbers, field test questionnaires were keypunched although the base year student questionnaire (minus the locator section) will be optically scanned. Key locator data were edited for possible future use. Data from the main questionnaire were not cleaned--that is, machine editing programs were not employed--since doing so would have lessened their value for purposes of the nonresponse analysis.

The receipt control clerk updated the survey management system (SMS) entering the current student status disposition from a copy of the completed transmittal form. (For a complete description of the SMS please see Chapter 4.) The clerk also updated the school receipt control database entering the following information:

- date the box was received
- number of completed questionnaires
- number of completed tests
- date questionnaires were sent to data entry
- date tests were sent to ETS
- make-up date, if one was scheduled

Generally, the mail process ran smoothly. We did notice in a few instances that boxes took longer to arrive from the field than expected. These exceptional cases turned out not to be, as expected, explicitly stamped first class mail, although they were mailed under a first class postal permit. Team Leaders were reminded to either mark the box "first class" or make sure the postal clerk did so. For the base year, if the U.S. Postal Service is used, we will mark the boxes here at NORC before materials are mailed to the field.

Two boxes were lost in the mail and never arrived at NORC. The U.S. Post Office requires a wait of 30 days before initiating a search on a box. Both Team Leaders have initiated the search procedure, but to date (May 28, 1987) the missing boxes have not been traced. The 2 boxes represents a loss of 2.6 percent of our materials. We are also investigating the cost and reliability of private mail companies for use in the base year. A matter that should be considered is what incentives could be offered to a school whose materials were lost, to enlist its cooperation in efforts to survey them a second time.

2.3.7 Conclusions and Recommendations

Although the task of securing district and school persuasion was often arduous, once an eighth-grade school had agreed to cooperate, survey procedures could be smoothly implemented. Indeed, eighth grade proved to be an even more hospitable survey environment in the field test than high schools. School staff were generally more cooperative and exercised far tighter control of the student population than did the staff of secondary schools, and students themselves were enthusiastic about the study. The result was a high initial in-school participation rate for all schools in which parental consent had been generally obtainable.

Given the favorable environment for student participation, Orientation Days boosted response far less dramatically than might have been the case in a less favorable environment. Nevertheless, in certain types of schools, more at risk for low levels of participation, the orientation sessions proved of value, both in fostering return of explicit permission forms and in increasing attendance on Survey Day. In addition, the Orientation Days seemed to fulfill a number of additional functions, and further activities (for example, conducting the sample update on-site) could be efficiently folded into Orientation Days. While we think that much benefit can come from a pre-survey school visit, it must also be said that generally survey sessions went very well in the field test even at schools with no Orientation Day, and that the resources spent in such a visit must be judiciously weighed against the benefits that would accrue from alternative investments, such as in-person or additional at-home training of Team Leaders.

Survey Days generally moved smoothly, as did Make-up Days conducted by Team Leaders. Survey Day scripts, however, should be shortened. It is clear that more explicit written instructions, and systematic prompting, will be necessary to ensure that small make-up sessions left in the hands of School Coordinators are successfully conducted in the base year. While survey forms facilitated clear transmittal records, the 2.6 percent rate of loss in transit (of completed tests and questionnaires shipped via U.S. First Class Mail) is troubling and suggests the need to investigate prospects for finding more secure means to transmit materials.

CHAPTER 3: ANALYSIS OF STUDENT SURVEY RESULTS

3.0 Overview

In Chapter 3, we analyze the principal field test results and propose modifications in the survey instruments. Every effort will be made to iteratively pre-test textual modifications in questionnaire items with small groups of students.

In 3.1, we address two sampling issues. First, we evaluate the sample updating procedure. Then we compare student ethnic self-reports with school reports (roster annotations as to Hispanic or Asian-Pacific Islander ethnicity).

In 3.2, we analyze the student questionnaire data. We do so from seven perspectives. First, we examine the results of the in-house critical item edit, both to appraise the success of retrieval efforts, and also to evaluate the quality of the in-school edit conducted by the Clerical Assistant. Second, we define and set limits for item nonresponse, and analyze each problematic data element in the student questionnaire. We attempt both to identify the causes of nonresponse, and to address nonresponse problems through suggestions for improved item wording, questionnaire formatting, or survey procedures. Third, we systematically address logical consistency issues by examining inter-item consistency and consistency of responses to filter and dependent questions. Fourth, we appraise questionnaire length by comparing the quality of responses in early items with the terminal items in the student instrument. Fifth, we compare student and parent reports, where parallel data have been solicited. Here we give particular emphasis to the cross-validation of SES data. Sixth, we examine the reliability of the two attitude scales--locus of control and self-esteem--that appear on the student questionnaire. Finally, we investigate whether high nonresponse items of a particular type pose more of a problem for one particular population of respondents than another (for example, students with low grades, students from different socioeconomic backgrounds).

The concluding section of Chapter 3 (3.3) is an analysis of cognitive test battery results.

3.1 Student Sampling Data

3.1.1 Updating the Sample

In order to give each eighth grade student equal probability for selection into the sample, school coordinators were asked to compile a list of all eighth graders who transferred in between the time student rosters were produced and Survey Day. Approximately 10 days prior to Survey Day school coordinators supplied NORC with a list of students who qualified as transferred-in. School coordinators coded these lists for ethnicity and eligibility just as they had done earlier for the eighth grade student roster. Also at this time, school coordinators identified previously sampled students who had transferred out or who had become ineligible because of a permission denial from the parent or guardian. All of this information was recorded on the Sample Update Form (see List of Appendices).

Sample updating was conducted by central office staff in the first four weeks of the field period. Based on the central office experience, specifications were written for field staff, and the updating function transferred to Team Leaders. Field personnel proved able to follow the updating instructions and to implement the procedure successfully.

Under these procedures, transfer-in students were sequentially numbered and selected for inclusion in the sample based on the same set of computer generated random numbers used to select the original sample of 32 students.

Information from the Sample Update Forms indicates that across the 51 field test schools there were 115 transfer-ins, of whom 11 were selected for inclusion into the sample. While no records were kept for the total number of transfer-outs per school, our receipt control system indicates that 65 of the 1,531 sampled students transferred out prior to Survey Day.

The sample update procedure had assumed a rough symmetry, for the sample as a whole, regarding the number of transfer-ins and transfer-outs, and sample gains and losses from transfers. The ratio of 11 to 65 contradicted this assumption dramatically.

Two factors probably explain most of this asymmetry. In some cases we found that original rosters had not been sufficiently reviewed and that selected students had in fact transferred out many days or weeks prior to the drawing of the sample. An additional, and probably more important factor, was that many schools did not have ready records of the transfer-ins. This was particularly true of schools with computerized record-keeping systems, which often had rosters that were up-to-date to the very day, but no record of the date on which a new student had been added. In such cases school coordinators had to reproduce entire eighth grade rosters and compare them to an earlier version of the same roster in order to identify transfer-in students. In all probability it was the added administrative burden of compiling a list upon request that caused the under-reporting of transfer-ins, coupled with the error that may attend manual cross-checking of lengthy lists. To forestall this problem for in base year of NELS:88, one solution would be to provide school coordinators with specifications for keeping a cumulative list of transfer-in students as part of the procedure for producing student rosters for the entire eighth grade class. School Coordinators were asked a number of times whether, should they be asked to keep a log of transfers from the minute the initial sample list was generated, they could readily do so. Coordinators felt that they could indeed do this, and that doing so would produce accurate lists of their new students.

3.1.2 Identification of OBEMLA Sample

One question of special interest in the field test was how successful schools would be in identifying members of the two groups (Hispanics, Asians-Pacific Islanders) that would be specially sampled for the OBEMLA supplements. Crosstabulation of student ethnic self-report with the school's report provides a means of judging how well schools, under the field test conditions, could identify Hispanics and Asians. For ethnic annotation purposes, schools were asked to consider a student to be Hispanic if by self-report, by native language, or by ethnicity or national origin, he or she was Hispanic or Latino--that is, had predominant origins (at least fifty percent) in any of the traditionally Spanish-speaking countries of North, Central, or South America. Similarly, schools were asked to consider a student to be Asian-Pacific Islander if by self-report, by native language, or by ethnic origin, predominant origins (at least 50 percent) included the Asian countries of the Pacific Basin (for example, China, Japan, Southeast Asia, the Philippines, and the islands of the Pacific). Since emphasis was on the original peoples of the Orient and Pacific islands, natives of Asian countries outside the Pacific Basin, such as India, Pakistan, Soviet Asia, and so on, were not to be included.

School ethnic report in the field test might come from any of several sources. In small schools, a School Coordinator would normally know most if not all students by sight and name. In these settings, coordinators were usually reasonably sure of whether any given student was or was not Hispanic or an Asian/Pacific Islander. In larger schools, the coordinator would know only a small proportion of students, but sometimes could rely on school records for clarification of the ethnicity of other students. To the extent that ethnicity records were on file, their accuracy is uncertain. In most cases, however, we were told that the school drew its ethnic categories differently--so that they were not co-extensive with the two OBEMLA groups--or had no listings by ethnicity.

In New York City, for example, records reflect students who speak English in the home, students who speak Spanish in the home, and students whose home language is other than English or Spanish. Since Spanish mother-tongue and Hispanic ethnicity are not conterminous, and since non-English or non-Spanish is not equivalent to Asian-Pacific Islander, such records are of limited value in annotating ethnicity. While schools generally have lists of Limited English Proficiency students, these too are of restricted value in identifying ethnically Hispanic and Asian populations. Many districts indicated that it was a matter of strict policy that schools not categorize students by their ethnic origins or keep records with this information.

In cases where limited or no ethnicity records were available, the School Coordinator reviewed the eighth grade roster, looking for names of students he or she knew, looking for Spanish surnames, and looking for obviously Asian names, and using as an additional resource any records that might identify some part of the relevant populations. Sometimes School Coordinators did further checking with homeroom teachers. This was at the Coordinator's initiative; NORC had not built a teacher check into the specifications for preparing the roster. In exceptionally large schools with many homerooms, teacher review of student rosters would not have been convenient for the coordinator, and deadlines for processing rosters limited the amount of time that could be devoted to cross-checking student lists. Nevertheless, where teachers were extensively consulted, they were able to contribute substantially to the identification of targeted minority language populations. Given the school record and personnel resources available for use in identifying Hispanic and Asian-Pacific American students, some degree of inaccuracy--especially undercounting--could be expected in the ethnicity annotations. Whether such inaccuracy was within a tolerable range could not be foreseen and one of the purposes of the field test was to investigate this issue.

In Table 3-1, school and student ethnicity reports are compared by crosstabulating student questionnaire item 1 (AREA OF WORLD ANCESTORS LIVED BEFORE COMING TO AMERICA) with ethnicity (Hispanic, Asian-Pacific Islander, Other (= neither Hispanic nor Pacific Islander) taken from the annotated eighth-grade roster.

TABLE 3-1

CROSSTABULATION OF SCHOOL ETHNICITY
REPORT WITH STUDENT ETHNICITY REPORT
(HISPANIC, ASIAN-PACIFIC, CORE)

SCHOOL REPORT--> STUDENT REPORT	HIS	API	CORE	TOTAL
HIS	176	5	76	257
API	5	90	71	166
CORE	3	1	823	827
DK	1	0	46	47
Total	180	91	1016	1297

Apparently, schools reported only 68 percent of those who were by self-report Hispanic, and 54 percent of those who reported themselves to be Asian-Pacific Islander. If self-reports of ethnicity are to be regarded as more reliable than school-reports (this assumption will be further discussed below), then under-reporting of the two OBEMLA-supplemental groups appears to be seriously large. On the other hand, over-reporting of these groups appears to be extremely small: approximately one half of one percent of self-identified core students (4) were characterized as Hispanic (1) or Asian (3) by their schools.

These conclusions are somewhat qualified when the crosstabulation is extended to API and Hispanic subgroups. For Hispanics, all groups were under-identified by schools, though this was least so for Cubans. (This fact may reflect administrators' especially close knowledge of students in the two small private schools in Miami from which most of the sampled Cubans come.) Under-identification was a problem for Mexican-Americans (29 of 120 or 24 percent under-identified), who were concentrated in several California and Texas schools; for Puerto Ricans (11 of 25 or 44 percent of self-identified Puerto Ricans were identified as Hispanic on school rosters), who were most heavily represented in New York schools; and was also a problem for the Other Hispanics (26 of 58 or 45 percent identified as Hispanic on the school roster) who appeared in a variety of schools, especially in New York, Florida and California. Thus, under-identification would appear to be pervasive, a problem that occurred in a wide range of schools in every site where Hispanics were substantially represented.

TABLE 3-2

CROSSTABULATION OF HISPANIC SUBGROUP MEMBERSHIP (STUDENT REPORT) WITH ETHNICITY (SCHOOL REPORT)

SCHOOL REPORT--> / STUDENT REPORT	HIS	API	CORE	TOTAL
MEXICAN	91	0	29	120
CUBAN	48	1	5	54
PUERTO RICAN	11	0	14	25
OTHER HISPANIC	26	4	28	58
Total	176	5	76	257

Our experience in iterative pretesting showed that there could be some level of student error in use of the ethnic categorizations of Q.1 and that a student who did not understand what was meant by "Hispanic" or "Asian-Pacific Islander" would work through the list of subgroups, find none that corresponded to his or her own ethnic identity, and opt for the last element, "Other." Thus while the presumption is that self-report will be more reliable for ethnic categorization than school-report, some amount of student error is also expected, primarily in the "Other" category. We therefore looked at "Other Hispanic," which asks the respondent to write in the group to which he belongs. Of the 58 self-reported Other Hispanic cases, 26 are recorded as Hispanic by the school and 32 are not. However, of these 32, fully 19 are probable student errors of self-classification. These cases (that is, in 15 instances) mostly fall into various European groups such as Italian, Portuguese, Irish, German and English--although Spain is the largest such group (seven instances). Note that the question asks about the area of the world the respondent's ancestors lived in before coming to "America," not "the United States." It is therefore uncertain that these European-origin students are in all cases mistaken in reporting themselves as Hispanic. Many countries in Latin America have large populations of European descent and it is quite possible to be, for example, a Spanish-speaking ethnic Italian from Argentina--but the numbers suggest that many if not most or all of these students have opted for an incorrect categorization. Another block of probably incorrect responses comes from non-Spanish speaking portions of the West Indies (two Haiti, one Trinidad). The majority of the responses under Other Hispanic are, however, from South or Central America, with Colombia (6) and El Salvador

(5) the most common--but Bolivia, Guatemala, Ecuador, Argentina, Chile, Paraguay, and Peru are also represented. In one case, a student who was half Mexican and half Spanish represented himself as Other Hispanic. If we adjust for the probable level of student error in the Other Hispanic category, Hispanic ethnicity as reported by the school should prove somewhat more accurate than suggested by the initial crosstabulation. The 31 seemingly miscategorized Other Hispanics may in fact be as few as 13. But the level of error over the four Hispanic categories still stands at about one fourth of the total.

When subgroups are brought into the crosstabulation for Asian-Pacific Americans, the results qualify the broader picture importantly. This crosstabulation shows that disagreement between school- and student-report is concentrated in the category Other Asian, where only 18.4 percent of those who are Other Asian by self report are characterized as of Asian ethnicity by the school. However, there are two other categories which, though smaller in absolute numbers, we presume have a similarly high proportion of students who are misclassified by their schools. Annotated rosters also show as Asian only 45 percent of those who claimed to be of Japanese descent and only 36 percent of those who maintained they were Pacific Islanders. Other groups were more successfully identified: school- and self-reports agree for 82 percent of Chinese, 75 percent of Filipinos, 91 percent of Koreans, and 70 percent of Southeast Asians.

TABLE 3-3

CROSSTABULATION OF ASIAN-PACIFIC SUBGROUP MEMBERSHIP (STUDENT REPORT) BY ETHNICITY (SCHOOL REPORT)

SCHOOL REPORT--> STUDENT REPORT	HIS	API	CORE	TOTAL
CHINESE	1	23	4	28
FILIPINO	1	24	7	32
JAPANESE	1	5	5	11
KOREAN	0	10	1	11
SOUTHEAST ASIAN	1	14	5	20
PACIFIC ISLANDER	0	5	10	15
OTHER ASIAN	1	9	39	49
TOTAL	5	90	71	166

It is difficult to give a more than speculative explanation for some of these differences. Whether the large misidentification of Japanese reflects their degree of assimilation and lack of concentration in the U.S. population, or, is simply an artifact of small numbers in a small field test sample is uncertain. Since Southeast Asian names are usually highly recognizable--while Chinese surnames when combined with European first names (for example, "Jason Lee") sometimes produce ambiguity--one might expect more under-reporting of Chinese although in fact Southeast Asians appear as slightly more under-reported. While Chinese (especially south-Chinese) are a relatively clustered population that may have special visibility and program significance within a school, this is generally at least as true of recent immigrants from southeast Asia. We had expected Filipinos, with their Spanish names, to be often misreported by schools as Hispanic. This in fact happened only in one case for the thirty-one self-reported Filipinos. However, a number of Hispanics were reported as Asians, and it may be that some of these Spanish-surname students were assumed by schools to be Filipino. (It is also possible that these cases represent clerical errors in annotation.) Since many Guamanians and other Pacific Islanders have taken western names, it is perhaps not surprising that in large schools some of these students might be missed.

The Other Asian category, with more apparent misclassifications (39) than all the other Asian subgroups combined, and with the greater likelihood of error that attends a catch-all category, was reviewed in the hard-copy questionnaires. A list was compiled from the write-in portion of the question.

Of the 49 responses, 24 are clearly in error: Italy (4), Africa (3), Poland (2), England (2), Ireland (2), Germany (3), Sweden (1), Hungary (1), Yugoslavia (1), Holland (1), Czechoslovakia (1), Florida (1), White (1), Caucasian (1). Two more (Russia) are probable errors--possibly the respondent meant to cite origin in the Asian portions of the Soviet Union, but since the United States has received few immigrants from Soviet Asia these responses seem more likely to be errors. If so, 26 or well over half of the student reports are likely to be in error.

In a large number of the remaining instances, student and school reports disagree, but because the OBEMLA Asian-Pacific Islander group is not coextensive with all Asians, this disagreement does not mean that either the school or the respondent made an incorrect ethnic attribution. Thus 13 are south Asians, from the Indian subcontinent (they describe themselves as Indian, Hindu, Bengali or Pakistani). Another five are Asian Arabs from such countries as Syria, Jordan or Lebanon. One respondent is Armenian. All of these groups are clearly Asian, but do not fall into the Asian-Pacific Islander supplement, with its Pacific Basin focus.

Finally, there is a small group that is both Asian and correctly a part of the OBEMLA supplement--one Taiwanese, one Thai--and though there was a separate Southeast Asian category provided for them, with Vietnamese given as an example--two Vietnamese.

If only four of the 49 Other Asians are properly OBEMLA supplementary students, the schools, rather than undercounting by 39, overcounted by four. If we assume that self-reports for Chinese, Filipino, Japanese, Korean, Southeast Asian and Pacific Islander are likely to be accurate, the schools undercounted 30 times and assigned members of these groups to the wrong supplement (possibly a clerical error) four times for an undercount rate of approximately 34/114 or nearly 30 percent, or slightly higher than the school undercount of Hispanics.

As a further check on student reports, we crosstabulated student's self-reported ethnicity with parent ethnicity, when this information was available. (Since not all schools had the parent survey and not all parents participated, there were parent reports for only about fifty-four percent of the students.) We determined whether parent and student agreed on the same broad category--Asian-Pacific, Hispanic, or Core. Of course, since some students have a dual heritage and may identify ethnically with a parent other than the one completing the questionnaire, a discrepancy between parent and student ethnicity need not be contradictory. Nevertheless, the correlation between the two should be extremely high.

There was high correspondence between Hispanic student and parent reports (93 percent) with most of the error in the Other Hispanic category. There was reasonably high correspondence between parent and student reports of Asian ethnicity (88 percent), when the Other Asians were excluded, but the high rate of error (only 10 of 27 reports matched) in Other Asian brought the overall percentage down to 72 percent. The other category that was plagued with error was Pacific Islander, where there were only two matches out of six. If we consider only Filipinos, Chinese, Japanese, Koreans and Southeast Asians, parent-student reports matched 94.3 percent of the time. The parent reports confirm the main conclusions reached above--there is much error (student over-reporting) in the Other Hispanic and Other Asian categories; schools nevertheless substantially undercounted the main Hispanic and Asian groups. However, schools may not have substantially undercounted Pacific Islanders, since parent reports often fail to corroborate student reports for this small group.

Of course, complete accuracy in school reports is not required. Inaccurate reports at the school level are over-ridden by student self-reports, insofar as roster ethnicity is solicited only as a sampling datum. Should large numbers of students be misidentified as Hispanic or Asian-Pacific, the selection procedures would risk not bringing enough supplementary students into the sample. We see evidence of only a small amount of over-reporting of these groups. While under-reporting is less serious a difficulty, sampling efficiency will be maximized if further efforts can be made to increase the accuracy of roster annotations. There is some risk of sample bias if certain types of supplementary sample students are more likely to be underidentified than others. It is not unlikely that recent immigrants, who are somewhat more concentrated and more likely to experience language difficulties and receive special educational assistance, will be less often missed than more assimilated students. If so, school identification of the more policy-relevant group--that is, the group more likely to be enrolled in or eligible for OBEMLA programs--would be more nearly accurate--but analysts might find a significant comparison group to be under-represented.

The field test experience suggests that in all but very small schools, more accurate annotating of ethnicity will require a more active role for the homeroom teacher. Coordinators should be encouraged to enlist the participation of teachers in reviewing the rosters whenever this is possible. In schools with especially large eighth grades, where teachers might find it burdensome to review the entire roster, coordinators could generate lists by homeroom or at least mark uncertain cases for review, thus minimizing this burden. A flexible arrangement will have to be worked out on a school-to-school basis, to enlist the help of teachers at those sites where the School Coordinator is least able, owing to size of eighth grade and deficiencies of records or personal knowledge, to provide accurate ethnicity annotations. Inevitably, some undercounting will persist, and it will be an important goal of the base year effort to minimize such error.

3.2 Student Questionnaire Data Analysis

3.2.1 Overview

This section is divided into seven parts. In 3.2.2, we address the issue of critical items in terms of their editing, editing error, and the success of retrieval. High nonresponse items are analyzed in 3.2.3. The probable causes of nonresponse are pointed to and suggestions made for reducing nonresponse. Logical consistency issues are addressed in 3.2.4 (inter-item consistency checks) and 3.2.5 (consistency of responses to filter and dependent questions). Response variation by position in the questionnaire--with special attention to whether there is degradation in the quality of data for the terminal elements--is examined in 3.2.6. Although most items in the NELS:88 questionnaires are aimed at one "best respondent" population only--whether teachers, principals, parents, or eighth graders--there is some redundancy in content across questionnaires where this is desirable to permit analyses of item validities and perceptual differences. Content overlaps between the student and parent questionnaires are examined in 3.2.7, where parent and student reports on socioeconomic status (SES) indicators and other items are closely compared. Finally, in 3.2.8, a reliability analysis is used to help determine the optimal length of the attitude scales in the student questionnaire.

3.2.2 Analysis of Editing and Retrieval of Critical Items

Twenty-one questions were designated as critical items for the field test. Questions were designated critical items on the basis of their centrality to the policy concerns of NELS:88 and to the follow-up activities of NELS:90, their analytic importance, and the questionable ability of students to answer particular questions. A review of the critical item edit will address the effectiveness of the edit in assuring high data quality for these essential questions. In addition, since an in-house edit was conducted to evaluate the editing performance of the Clerical Assistant, Clerical Assistant performance will also be discussed.

Each of the critical items was edited by the Clerical Assistant and, if a key data element was missing or ambiguous, the item was retrieved by the Team Leader. In addition, an in-house edit was conducted both to check the work of the Clerical Assistant and to assure the highest possible data quality for locator items necessary for 1989 field test follow-up.

For a sample of schools, Clerical Assistant errors were classified by the in-house editor according to the impact the error would have on data quality. Errors were classified as Type A errors if they would have an irrevocable adverse effect on data quality. For example, if a student circled two responses in Q13 for father's occupation rather than one response, and the Clerical Assistant did not retrieve the item, this was classed as a Type A error. On the other hand, Clerical Assistant errors were classified as Type B errors if they would have no effect on data quality. For example, Clerical Assistants were instructed to make sure that students actually circled the number of their response, rather than the words of the response. In many cases, Clerical Assistants neglected this instruction owing to time constraints, but there was no effect on data quality since we keypunched the answer in either form. Indeed, students will not be prone to make such errors in the base year since the procedure of filling in an oval, necessary for optically scanned entry of data elements, will eliminate or greatly minimize the quantity of circling errors.

In addition to the check of Clerical Assistant performance, in a subsample of eighth grade schools retrieval statistics were gathered to aid in the assessment of Clerical Assistant retrieval burden; these statistics also inform the analysis of the edit process.

Two tables are provided directly below. Table 3-4 is a list of all critical items in the two eighth grade survey instruments (Locator Booklet; Main Questionnaire--see List of Appendices for these documents), the number of data elements, and substantive content for each question. Table 3-5 lists the retrieval rates and Type A and B error rates for each question. Retrieval rates and Clerical Assistant error rates are reported on a per case basis.

TABLE 3-4

CRITICAL ITEMS IN THE EIGHTH GRADE SURVEY INSTRUMENTS

Locator Booklet

Question	Data Elements	Substantive Content of Critical Item
LQ 1	11	Student's name, address, and telephone number
LQ 2	4	Mother or female guardian's name
LQ 3	9	Mother or female guardian's address and telephone number if different from respondent's
LQ 4	4	Father or male guardian's name
LQ 5	9	Father or male guardian's address and telephone number if different from respondent's
LQ 7	11	Name, address, and telephone number of family friend or relative
LQ 8	1	Does respondent have a nickname
LQ 8A	1	Nickname of respondent
LQ 9	3	Respondent's month, date, and year of birth
LQ 10	1	Respondent's sex
LQ 11	3	Name, city and state of high school respondent expects to attend
LQ 13	1	Type of high school respondent expects to attend
LQ 20	1	Language other than English spoken in home?
LQ 21	1	What language do people in home usually speak?

Main Questionnaire

Question	Data Elements	Substantive Content of Critical Item
MQ 1	1	Ancestral descent
MQ 2	1	Race
MQ 9	7	Special physical and/or mental impairments of respondent
MQ 13	2	Father or male guardian's and mother or female guardian's occupations
MQ 26	1	Educational expectations of respondent
MQ 43	4	Ability group of respondent in four subjects
MQ 44	1	Respondent's classes this school year

TABLE 3-5

CRITICAL QUESTIONS' RETRIEVAL AND ERROR RATES

		Clerical Assistant Errors	
Question	Retrieval Rate	Type A Error Rate	Type B Error Rate
LQ 1**	.031	.119	.698
LQ 2	.015	.020	.298
LQ 3**	.083	.047	.105
LQ 4	.030	.017	.275
LQ 5**	.117	.125	.139
LQ 7**	.158	.388	.530
LQ 8	.033	.017	.220
LQ 8A	.035	.000	.017
LQ 9	.027	.044	.271
LQ 10	.015	.000	.010
LQ 11	.031	.014	.054
LQ 13*	.039	.014	.007
LQ 20	.035	.014	.288
LQ 21*	.039	.014	.017
MQ 1*	.115	.092	.027
MQ 2	.014	.000	.007
MQ 9**	.095	.047	.010
MQ 13**	.128	.203	.000
MQ 26	.012	.010	.000
MQ 43	.020	.014	.003
MQ 44*	.052	.020	.112
Means	.054	.058	.147
Single data element	.038	.018	.069
Multi-data element	.070	.102	.233

* Above the single data element mean, discussed individually below.
** Above the multi-data element mean, discussed individually below.

For purposes of analysis the critical items were divided into two groups. One group was composed of all single data element items, the other group was composed of all other critical items. This was necessary because all of the multi-data element items registered high rates of error and retrieval when compared with the single data element items, owing to the greater opportunity for retrieval and error within the multi-data element questions. In order to isolate problematic questions of both types, questions were grouped for purposes of analysis. Mean retrieval rates and Type A and B error rates were calculated for each group; each item which registered above the mean for its group in either retrieval rate or Type A error rate is discussed below. Single data element items are discussed first, then multi-data element items are discussed. After the individual discussions of each problematic question, an analysis of the retrieval burden, overall Clerical Assistant performance of the critical item edit, and the entire editing process will be provided.

3.2.2.1 Single Data Element Questions

Four single data element questions registered relatively high retrieval rates, and two of these also registered relatively high error rates. The four questions--Locator Question 13, Locator Question 21, Question 1 and Question 44--are discussed below.

Locator Q 13	Retrieval Rate	Type A Error Rate	Type B Error Rate
	.039	.014	.007

Analysis

Locator Question 13 asks the respondent the type of high school s/he expects to attend. In an effort to gather information on the extent of student knowledge and facility with the terms commonly used to classify high schools--general, comprehensive, college preparatory, trade, technical, and vocational--an open-ended category was provided. In addition, a "Don't Know" category was provided.

Thus, it is somewhat surprising to find a high retrieval rate for this question. Apparently even these measures were not effective in inducing a student response prior to retrieval. That students experienced a high degree of difficulty with this question is borne out by its presence on the list of high nonresponse items, provided later, principally because of a high number of "Don't Know" responses. On the basis of the edit, however, it seems clear that students need more information to assist them in answering the question, if they in fact possess the information to answer this question at all. An examination of all open-ended responses provided supporting evidence of respondent confusion with the answer categories. Students responded in a variety of ways, and their responses included the following: French program, Adventist, middle school, comprehensive high school, educational, regular, business, and more.

Recommendation:

Provide more explanatory text within the answer categories, such as college prep, and academic for college preparatory high schools, regular for comprehensive high schools, and business and career for vocational high schools. In addition, a category should be included for specialized high schools, for example, Fine Arts, specialized science high schools, and similar schools, as these schools are proliferating. Even with these additional measures, it may well be that many eighth graders do not have the knowledge of school and program type required to answer this question.

Locator Q 21	Retrieval Rate	Type A Error Rate	Type B Error Rate
	.039	.014	.017

Analysis

This question is the first question in the minority language items; thus, high retrieval on this question typically indicates difficulty on the part of students following the skip pattern. Skip pattern performance as a whole is discussed in section 3.2.5 of this chapter. The relatively high retrieval rate suggests one option for dealing with skip pattern difficulties for this critical filter question of the minority language items. Instead of including the items in either of the two booklets, the filter and dependent items could be placed into different booklets to allow survey personnel to edit filter items and designate respondents for the dependent questions. This would facilitate the utilization of more complex designation rules. Still, an assessment of the potential advantages of such a system must be balanced by an equally astute assessment of the cost of such a system. The editing time used in designating respondents, and the logistical challenges of such a system must be examined.

Recommendation:

At the very least, use routing arrows and different colored pages to assist students in following the skip pattern. Also, explore the possibility of separating the filter and dependent questions and utilizing survey personnel in an edit of the filter items and subsequent designation of dependent question respondents.

Main Q 1	Retrieval Rate	Type A Error Rate	Type B Error Rate
	.115	.092	.027

Analysis

The Main Questionnaire Question 1 high retrieval rate is simply another in a series of indications of the difficulty students have categorizing themselves with respect to ethnicity. Iterative pre-testing of the instruments provided evidence of one way to deal with this problem. Debriefing of students suggested that core students were more comfortable with a list of broad ethnicity categories than they were with a catch-all negative category that defined them in opposition to the OBEMLA interest populations. This issue is treated in further detail below in a discussion of the OBEMLA sample in section 3.1.2. Some suggestions for the adjustment of this item are discussed in the context of the OBEMLA interest groups.

Recommendation:

To accommodate non-OBEMLA interest populations, we have two options: 1. add the broad categories of African, European, and American Indian, and to properly categorize Asian subgroups, provide more Asian subcategories to include Asian groups not of OBEMLA interest. 2. utilize a skip pattern to broadly classify students as Hispanic, Asian-Pacific Islander, and Other, with a dependent question for each classification.

Main Q 44	Retrieval Rate	Type A Error Rate	Type B Error Rate
	.052	.020	.112

Analysis

The high level of retrieval for Question 44, which concerns student courses for the current academic year, is probably related to the large number of response categories provided. This large number of response categories, coupled with the placement of the item, conspires to decrease student attention to the item. Clerical Assistant performance on this question is far superior to performance on Main Questionnaire Question 1, and is in line with their performance on single data element questions. MQ44 was categorized as a single-data element question because it is a 'Circle All That Apply' question. Thus, the CA needed to only check for the presence of one response.

Recommendation:

Group response categories in a visually and analytically distinct manner. For example, core courses such as Math, English, Science, and Social Studies might be grouped together under the heading of Core Courses, while all other courses, such as foreign language, health education, and drama might be grouped under Electives. Or, all Mathematics courses might be grouped under Math (there are four options), all Science courses (there are four options) under Science, and similarly for all subjects. A third option is to turn the question with twenty-five response categories into four sub-questions with Math, Science, Other core courses, and electives grouped together. Any one of these three options should increase data quality if the item is again designated critical by allowing the CA to check for an answer to every sub-question.

3.2.2.2 Multi-data Element Questions

Five multi-data element questions registered relatively high retrieval rates, and, of these, three also registered relatively high error rates. In addition, one question registered a high error rate. The six questions--Locator Question 1, Locator Question 3, Locator Question 5, Locator Question 7, Question 9 and Question 13 -- are discussed below.

Locator Q 1	Retrieval Rate	Type A Error Rate	Type B Error Rate
	.031	.119	.698

Analysis

As noted above, eleven data elements are directly derived from this question. The high Type B error rate can be explained by the breakdown of the student's address. Instructions called for survey personnel to retrieve all missing items. The layout of Locator Question 1 (and Locator Questions 3, 5, and 7) treats "Apartment Number" as a separate item, and therefore an item that should be retrieved if missing. Clerical Assistants did not retrieve this information, but its absence is of small importance; generally students with an apartment number filled it in, whereas students without an apartment number left it blank. This also is reflected in the relatively low retrieval rate.

The seeming incidence of Type A error is troubling. However, the missing information typically is the area code or zip code, data elements that can usually be obtained from other sources. Missing area codes are simple to provide if the remaining information is provided, as it usually is. In the case of the zip code the in-house edit process is a bit more involved but no less successful. If the zip code is not retrieved in the field it can usually be obtained from the information provided by other students in the school. Only in large cities with several zip codes would it be impossible to obtain this information directly from the data supplied by other students, and in this case if the remaining information is supplied, a zip code directory can be utilized.

Thus, from the information provided by the edit, it seems that Locator Question 1 is effective in obtaining data from the students, and in cases where Apartment, Area Code, and Zip Code data are not retrieved in the field the data is either unnecessary for the particular case or easily obtained with Central Office procedures.

Recommendation:

Retain this item as is.

Locator Q 3	Retrieval Rate	Type A Error Rate	Type B Error Rate
	.083	.047	.105

Analysis

Locator Question 3 asks for the address of the female guardian if the student does not live with the female guardian. This question had a high retrieval rate, with low incidence of Type A and Type B error. The high retrieval rate (one-third higher than the mean retrieval rate for all critical items) is a function of two features of this question. First, this question has imbedded within it a second order skip pattern, which might have created some degree of confusion for students. (Skip pattern performance is discussed in detail in section 3.2.5.) Second, many students may not know all elements of the address of a parent with whom they do not live, and their lack of knowledge would necessitate a retrieval.

Still, there seems to be no way to effectively and efficiently address these difficulties without introducing other methodological difficulties. The question will have to stand on its own.

Recommendation:

Retain this item as is.

Locator Q 5	Retrieval Rate	Type A Error Rate	Type B Error Rate
	.117	.125	.139

Analysis

Locator Question 5 is the father or male guardian correlate of Locator Question 3. In statistical terms, though the Type B error rates for the two questions are similar, there the similarity ends. The Type A error rate for Locator Question 5 is approximately twice the mean of all critical items, and slightly less than three times that of Locator Question 3. In addition, the retrieval rate is much higher for Locator Question 5 than for Locator Question 3.

Still, what is observed is simply an increase in the degree of the problem, rather than the emergence of a different problem altogether. The difference in retrieval rates can be explained by the presumably greater incidence of households with only a female guardian as compared to households with only a male guardian. Therefore, more students would be living in a situation which called upon them to answer this question. All other factors mentioned for Locator Question 3 hold true for this question also, because the formatting of the two questions is precisely parallel. Thus, the presence of a second order skip pattern within the question and the lack of student knowledge of address information for guardians with whom they do not live have the same effect here as they do in Locator Question 3, only more so owing to the higher number of students affected by the question. This effect is registered in both the high retrieval rate and the high Type A error rate -- the more times this particular question would be answered by students, the more opportunities for error.

To assess the importance of Type A error it is necessary to focus more directly upon the particular types of errors Clerical Assistants made with this question. Clerical Assistant errors were typically errors of omission rather than commission. Thus, the greater part of the errors should have been retrieved; adding this error rate to the retrieval rate provides a better indication of the level of retrieval--.242. Still, the Type A error rate itself is explained, as is the drastic difference between Clerical Assistant performance with Locator Question 3 and 5, on the basis of greater student uncertainty with respect to this item.

Parenthetically, it is worth noting that the retrieval of Locator Questions 3 and 5 is by and large mutually exclusive. In other words, cases retrieved because of Locator Question 3 are not retrieved because of Locator Question 5, and vice versa. Thus, approximately twenty percent of the time one of these two questions is retrieved. When considered in the light of a retrieval rate of 1.12 retrievals per case, these two questions account for approximately one-sixth of the total retrievals.

Recommendation:

Retain this item as is.

Locator Q 7	Retrieval Rate	Type A Error Rate	Type B Error Rate
	.158	.388	.530

Analysis

Locator Question 7 asks for the name, address, and telephone number of the family's closest friend or relative. Both the retrieval rate and the Type A error rate are above the mean on this question. The retrieval rate can be explained in that many students did not have full address information for family acquaintances. The high error rate, however, is more related to the large number of data elements within the question. Eleven data elements make up this question; thus, the error per data element per case is .0353.

Area codes, phone numbers, states, and zip codes were the data elements typically at the center of a Type A error. Among these elements, the zip code is of least importance. Phone numbers are most important for this item, followed by area code and state. State becomes important only if there is no area code. Still, Clerical Assistant performance on this particular question was not up to par, and will need to be addressed in the training for the base year. In addition, if the question is again designated a critical item in the base year, consideration might be given to restricting the data elements in need of retrieval to those most likely to be used in follow-up efforts, namely, phone information.

Recommendation:

Target particular data elements for retrieval if the question is again designated a critical item in the base year. Data elements suggested for specific targeting include Last and First Name, City, State, and Phone Number.

Main Q 9	Retrieval Rate	Type A Error Rate	Type B Error Rate
	.095	.047	.010

Analysis

Questions 9C and 9G, portions of Question 9, are also discussed in section 3.2.3.1 in the analysis of item nonresponse. In point of fact, the question referred to as Question 9 is really a series of independent questions concerning special services students may have received owing to particular types of health conditions. These questions have similar nonresponse rates. The problems with the question are best discussed in the context of nonresponse, since the retrieval rate is principally the effect of the large number of data elements in the question (7).

Recommendation:

See discussion in 3.2.7.2.

Main Q 13	Retrieval Rate	Type A Error Rate	Type B Error Rate
	.128	.203	.000

Analysis

Question 13 is the parental occupation question. It registers a high retrieval rate, a high Clerical Assistant Type A error rate, and a high nonresponse rate. (It does not register a high Type B error rate because all Clerical Assistant errors in Question 13 were classed as Type A errors.) In addition, student use of the response categories is not entirely consistent; this phenomenon is discussed in greater detail in sections 3.2.3.1 (on item nonresponse) and 3.2.7 (on student versus parent reports).

The question exhibits such high retrieval rates because students do not have sufficient information about their parents' occupations to categorize the occupation. Much of the retrieval was to correct multiple responses made by students as they sought to aptly characterize their parent's occupations. Indeed, the largest category of in-school edit error is failure to resolve multiple responses. The word "error" here may, however, be somewhat unfair to the Clerical Assistant. If a question elicited illegitimate multiple response, the on-site editor could point this out to the student and could ask the student to try to pick the one that fit best--but students were often unable or unwilling to make this choice. Clerical Assistants were not allowed to interpret the choices, guide the student to a particular category on the basis of information provided, or code a particular response as over-riding of others. In these circumstances, failure to resolve a large number of multiple responses is understandable, and many of these Type A errors represent situations where they quite properly carried their interventions as far as they were allowed to go.

It would seem extremely difficult to alter this question to lower the level of retrieval or the level of error and nonresponse and still maintain needed parallelism to the HS&B and NLS-72 occupation questions. Clerical Assistant error is related to the combined student lack of information about parental occupation and inability to use the Census occupation categories in that Clerical Assistants cannot elicit responses from students lacking in information. Many children will claim to know their parents' occupations. In fact, they may know their parental occupation yet still not possess enough information to classify the occupation according to the standard classifications. This refusal of students to acknowledge their inability to utilize the closed categories provided registers as a Clerical Assistant error. If students do not say that they don't know, Clerical Assistants could not use the "Don't Know" response.

Recommendation:

If sufficient occupation data can be obtained from parents, this item should not be retained on the student questionnaire.

3.2.2.3 Retrieval Burden

The retrieval rate of all questions together was 1.12 retrievals per case. Thus, on average, each case needed to be retrieved for at least one question. This high retrieval rate was concentrated, as discussed briefly above, in Locator Questions 3, 5, and 7, and Main Questionnaire Questions 1 and 13. These five questions, approximately 23 percent of the critical items, accounted for 54 percent of the retrieval. The breakdown per question is listed below in Table 3-6:

TABLE 3-6

HIGH RETRIEVAL RATE CRITICAL QUESTIONS

Question	Retrieval Rate	Percent of Retrieval
Locator Question 3	.083	7.4%
Locator Question 5	.117	10.4%
Locator Question 7	.158	14.1%
Main Questionnaire Question 1	.115	10.3%
Main Questionnaire Question 13	.128	11.4%

This is a high level of retrieval, and the changes suggested above aim at making items retained and designated critical in the base year as clear as possible in order to facilitate student success with the items prior to an edit and retrieval.

3.2.2.4 Clerical Assistant Performance of Critical Item Edit

In the light of the massive amount of retrieval necessary, which signals a high degree of Clerical Assistant editing activity, the performance of Clerical Assistants was exemplary. Still, Clerical Assistant performance was not exemplary on some particularly difficult questions, regardless of the retrieval burden thereby imposed. In the light of this field test experience, it will be advisable to train the Clerical Assistant for the base year on particularly difficult questions explicitly, while still providing the general guidelines applicable to every situation. Better Clerical Assistant training on these questions may actually increase the amount of retrieval above the field test levels; however, adjustments in difficult critical items discussed above may help to hold constant or somewhat reduce the retrieval burden.

3.2.2.5 Conclusion

The field edit was successful in assuring high data quality in cases where students possessed relevant information. No process can elicit meaningful locator or parental occupation information from respondents that do not possess such information. As suggested above, the training of the Clerical Assistant will pay particular attention to difficult questions. This will entail revision of the Clerical Assistant manual to some degree.

Retrieval rates will be lowered for some questions when the questionnaire is re-formatted for scanning. For other questions adjustments suggested by the edit will lower retrieval and increase data quality. For still other questions, such as the locator information, conditions will not be significantly altered by the scan edit, and barring other adjustments retrieval rates should remain at the level observed in the field test.

3.2.3 Student Questionnaire Data: Item Nonresponse

In this section, several issues pertaining to item nonresponse in the field test student questionnaire data are addressed. First is an explanation of how the high nonresponse items were identified and selected. This is followed by a list of the high nonresponse items. Then, each item is analyzed in turn. The clarity of the question is considered as well as the format and logic of the questionnaire. Where these are not problematic, other factors are considered. These include the relationship between the information sought and the probable knowledge of eighth graders and the characteristics of the nonresponse population. Where appropriate, modifications of questionnaire format or changes in item wording that might reduce nonresponse are proposed.

3.2.3.1 Item Nonresponse in the NELS:88 Student Questionnaire

The starting point in this analysis was to define the nonresponse problem by designating as problematic all variables that had 8 percent or higher nonresponse when all legitimate skips were excluded from the expected response. However, for the critical items in their final, field-edited form, a more stringent criterion of 5 percent was set.

Thus, the formula used to compute the response rate was:

$$\text{Response rate} = \frac{\text{number of valid responses} + \text{number of valid skips}}{\text{number of applicable respondents.}}$$

Since "valid response" could be interpreted in several ways, it is important to note that nonresponse was also categorized as to kind. The following nonresponse codes were used to designate invalid responses:

FIGURE 1: Nonresponse Codes in the Student Questionnaire Data.

CODE	NUMERIC CONVERSION	DESCRIPTION
REFUSED	7, 97	The respondent refused to answer an item either by written notation in the questionnaire, verbal report to the editor, or both.
DK	8, 98	A Don't Know option was provided in the response categories and was utilized by the respondent.
MULTIPLE RESPONSE	.	The respondent gave several answers to a question when the directions called for only one.
MISSING 99	9,	An item was left blank or uncircled, though a response was required.

While, for purposes of this analysis, we have regarded all nonresponse as "invalid," it is nonetheless important to distinguish types of nonresponse in terms of their "legitimacy." Nonresponse could be "legitimate" or "illegitimate"--that is, some forms of nonresponse were licensed by item response categories or by questionnaire routing instructions, while others were not. For example, a Don't Know option may have been provided and used; or the respondent may legitimately have skipped the question, by properly following routing instructions. We have excluded legitimate skips (where the respondent should not have answered the question and did not) from analysis. However, the other form of legitimate nonresponse--opting for an explicit Don't Know category--has been included in the nonresponse analysis, since, unlike the legitimate skips but like the illegitimate nonresponse categories, it is a marker of data that are desired but have not been provided. Also included in the analysis are all forms of illegitimate nonresponse--refusal to answer a question, failure to answer a question, or giving multiple responses where only one response is called for. In order to define problematic items, all forms of illegitimate nonresponse, and Don't Knows, were summed. Again, if total nonresponse exceeded 8 percent (or 5 percent for a critical item), the item was designated problematic, and has been included in this analysis. The table below lists the high nonresponse variables in the field test Student Questionnaire.

TABLE 3-7

HIGH NONRESPONSE ITEMS

Note: Locator Book items are prefaced with L, Main Questionnaire with Q

ITEM * = also a critical item

ITEM	TYPE OF NONRESPONSE				
	Refused	Don't Know	Multiple	Missing	Total
L11* CITY OF SCHOOL R EXPECTS TO ATTEND	--	1.2%	--	3.8%	5.0%
L13* WHAT KIND OF H.S. IS IT?	--	31.3%	.6%	.5%	32.4%
Q1* AREA OF WORLD ANCESTORS LIVED	--	3.4%	3.2%	2.5%	9.1%
Q3C N OF ASIAN STUDENTS IN R'S CLASS	--	.1%	.1%	9.5%	9.7%
Q9C * SPECIAL SERVICES FOR DEAFNESS	--	.1%	--	4.9%	5.0%
Q9G* SPECIAL SERVICE FOR MAJOR HEALTH PROBLEM	--	.1%	--	5.6%	5.7%
Q13A* OCCUPATION CATEGORY OF R'S FATHER	.3%	8.4%	8.6%	7.6%	24.9%
Q13B* OCCUPATION CATEGORY OF R'S MOTHER	.2%	6.0%	7.5%	5.2%	18.9%
Q14A HIGHEST LEVEL OF ED R'S FATHER COMPLETED	--	21.4%	6.7%	6.7%	34.8%
Q14B HIGHEST LEVEL OF ED R'S MOTHER COMPLETED	--	18.5%	7.2%	4.8%	30.5%

	Refused	Don't Know	Multiple	Missing	Total
Q18A **HAVE R'S PARENTS** **ATTENDED A SCH MEETING**	--	9.4%	--	2.8%	12.2%
Q18B **HAVE R'S PARENTS** **SPOKEN TO R'S TEACHER**	--	10.3%	--	1.7%	12%
Q18C **HAVE R'S PARENTS** **VISITED THE CLASS ROOM**	--	5.8%	--	3.0%	8.8%
Q23B **HOW MANY HOURS ON** **WEEKENDS R WATCHES TV**	--	--	1.7%	7.2%	9.9%
Q27A **HOW FAR IN SCH DOES** **R'S DAD WANT R TO GO**	--	10.2%	3.6%	12.2%	26%
Q27B **HOW FAR IN SCH DOES** **R'S MOM WANT R TO GO**	--	8.9%	4.2%	3.8%	16.9%
Q28 **WHICH H.S PROGRAMS WILL** **YOU ENROLL IN**	--	27.8%	2.0%	1.2%	31%
Q29C **HOW OFTEN R TALKS** **W/A GUIDANCE COUNSELOR**	--	--	--	8.1%	8.1%
Q33 **DID R TAKE TEST** **INDICATING APTITUDE**	--	24.7%	.1%	3.4%	28.2%
Q34 **WHAT KIND OF WORK R** **WILL BE DOING AT 30**	--	12.2%	5.8%	2.3%	20.3%
Q43A * **WHAT ABILITY GROUP** **IS R FOR MATHEMATICS**	.1%	5.5%	.3%	.5%	6.4%
Q43B * **WHAT ABILITY GROUP** **IS R FOR SCIENCE**	.1%	6.5%	.4%	.7%	7.7%

	Refused	Don't Know	Multiple	Missing	Total
Q43C * WHAT ABILITY GROUP IS R FOR ENGLISH	.1%	5.5%	.3%	.5%	6.4%
Q43D* WHAT ABILITY GROUP FOR SOCIAL STUDIES	.1%	6.9%	.3%	.7%	8%
Q49A MATHEMATICS CLASS IS USUALLY FUN	—	4.7%	.1%	3.3%	8.1%
Q49B I USUALLY LOOK FORWARD TO MATH CLASS	—	7.0%	--	3.3%	10.3%
Q49D MATH WILL BE USEFUL IN MY FUTURE	—	8.0%	.1%	3.2%	11.3%
Q50A ENGLISH CLASS IS USUALLY FUN	—	4.5%	—	3.3%	9.8%
Q50D ENGLISH WILL BE USEFUL IN MY FUTURE	—	9.5%	.1%	3.2%	12.7%
Q51A SOCIAL STUDIES CLASS IS USUALLY FUN	—	4.4%	—	3.9%	8.3%
Q51B I USUALLY LOOK FORWARD TO SOCIAL STUDIES	—	4.7%	.1%	3.9%	8.7%
Q51D SOC. STUDIES WILL BE USEFUL IN MY FUTURE	—	16.6%	.1%	3.9%	20.6%
Q52D SCIENCE WILL BE USEFUL IN MY FUTURE	--	14.8%	.3%	3.2%	18.3%

	Refused	Don't Know	Multiple	Missing	Total
Q56B DID R GO TO DAY CARE	--	10.8%	--	12.2%	23%
Q56C DID R GO TO NURSERY SCHOOL OR PRESCHOOL	--	8.1%	--	8.5%	16.6%
Q56D DID R GO TO HEAD START	--	19.5%	--	14%	33.5%
Q56E DID R GO TO EXTENDED DAY SCHOOL	--	24%	--	15%	39%

Overall, item nonresponse in the Main Questionnaire ranged from a high of 39 percent (item 56E, "Did you go to extended day?") to lows of less than 1 percent on both behavioral and attitude questions (for example, question 24 on cigarette smoking; question 25A, a self-esteem item), with a mean of 5.86 percent. When Don't Knows are excluded from the calculation, mean item nonresponse was 4.05 percent.

3.2.3.2 Item-by-Item Analysis

L11CITY CITY OF SCHOOL R EXPECTS TO ATTEND Critical Item

Response frequencies for locator question 11--name of city of school respondent expects to attend in Grade 10--are given below. (Note: the meaning of "valid" in the tables below does not correspond to "valid" in the formula for computing response and nonresponse.)

```
                                                      Valid      Cum
 Value Label                 Value  Frequency  Percent  Percent  Percent



                          98               16      1.2      1.2      3.1
                          99               53      3.8      3.8      5.0
                          Valid Name     1307     95.0     95.0    100.0
                                      -------  -------  -------
                             TOTAL       1376    100.0    100.0

                      Valid Cases    1376      Missing Cases     0
```

Because this is a critical item, five percent nonresponse was the cutoff criterion that determined this was a problematic variable. In fact, L11 is a three-part item that asks for school name, city and state. Of these three elements, the least known (5 percent nonresponse) is city.

Since being able to answer as to city is contingent on having some notion what school one will attend and 2.9 percent of the sample were not able to name a school, nonresponse attributable to not knowing the city name was only 2.1 percent. It is reasonable to suppose that a modest percentage of students will not have any idea where they will be attending tenth grade. In urban areas, for example, there is sometimes a wide range of school possibilities. An extreme example of this is New York City, where normally each student has a choice of ten schools to which he or she may apply, and though students are assured of admission at least to the nearest comprehensive high school, they cannot be certain which, if any, of the specialized high schools will accept them. Most of the respondents who left blanks (9, 99) for city answered Don't Know to the school name element of the question. That two percent of the sample did not indicate city represents a small additional number who named a school but not the city (the sixteen 98s) plus a number (14, or approximately 1 percent) of illegitimate blanks. These blanks should have been screened in the in-school edit and an answer, or refusal, or Don't Know response elicited from the student and coded by the Survey Team. The low rate of illegitimate nonresponse for this question suggests that no item or questionnaire format revisions are required.

Locator question 13 was discussed as a high-retrieval edit item in 3.2.2 above. This question asked what kind of high school the respondent expected to attend in tenth grade. Again, it is probably unrealistic to expect those who did not know what school they were likely to attend to characterize the type of school. But as noted above, only 2.9 percent of the sample was unable to name a probable tenth grade school. This lack of knowledge of the school explains only a very small part of the extraordinarily high nonresponse as to school program or type, as reflected in the response frequencies below.

L13SCHOOL WHAT KIND OF HIGH SCHOOL IS IT? Critical Item

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
GEN/CMPREHNSVE H.S.	1	715	52.0	52.5	52.5
COLL PREP H.S.	2	136	9.9	10.0	62.5
TRADE/TECH/VOC H.S	3	43	3.1	3.2	65.7
OTHER	4	37	2.7	2.7	68.4
DK	8	430	31.3	31.6	100.0
MULTIPLE	.	10	.6	MISSING	
MISSING	9	5	.5	MISSING	
	TOTAL	1376	100.0	100.0	

Valid Cases 1361 Missing Cases 15

The fact that this question was edited in the classroom no doubt explains the low level of illegitimate blanks (code 9), at one half of one percent. There is also a small number of multiple responses (.6 percent).

However, over 31 percent of respondents have indicated that they do not know what kind of high school they will enroll in. In iterative pretesting with small groups during the questionnaire development process, we found a similar proportion of students unable to characterize their intended high schools, and although these pretest respondents usually had a good idea which school they were likely to attend, they found it almost as difficult to characterize the kind of program in which they would enroll as the type of high school.

If indeed so little is known about high school programs and types at this critical transition period, this fact becomes a research datum in itself, with possible policy implications. However, we will further consult with school officials and educational researchers to see if these basic categories may be glossed with language likely to be more meaningful to eighth graders.

Question 1 in the main questionnaire was also a high retrieval item, and has been discussed in 3.2.2. This question asks students what areas of the world their ancestors lived in before coming to America. Its essential purpose is to permit all respondents to be categorized into Hispanic (with subgroup breakdowns), Asian or Pacific Islander (with subgroup breakdowns), or other (neither Hispanic nor Asian/Pacific Islander). Despite the in-school edit, nonresponse runs over 9 percent, owing to multiple responses, in which the respondent incorrectly opted for more than one category; Don't Knows; and illegitimate blanks (question not answered).

```
Q1        AREA OF WORLD ANCESTORS LIVED BEFORE U.S Critical Item

                                                           Valid     Cum
 Value Label                  Value  Frequency  Percent  Percent  Percent

MEXICAN                           1        120      8.7      9.3      9.3
CUBAN                             2         54      3.9      4.2     13.4
PUERTO RICAN                      3         25      1.8      1.9     15.3
OTHER HISPANIC                    4         58      4.2      4.5     19.8
CHINESE                           5         28      2.0      2.2     22.0
FILIPINO                          6         32      2.3      2.5     24.4
JAPANESE                          7         11       .8       .8     25.3
KOREAN                            8         11       .8       .8     26.1
SOUTH ASIAN                       9         20      1.5      1.5     27.7
PACIFIC ISLANDER                 10         15      1.1      1.2     28.8
OTHER ASIAN                      11         49      3.6      3.8     32.6
NEITHER HISPANIC NOR API         12        827     60.1     63.8     96.4
DK                               98         47      3.4      3.6    100.0
MULTIPLE                          .         44      3.2  MISSING
MISSING                          99         35      2.5  MISSING
                                       -------  -------  -------
                                 TOTAL    1376    100.0    100.0
Valid Cases     1297      Missing Cases     79
```

The response frequencies show the need for a tighter edit in the base year--too many blanks (2.5 percent) and multiple responses (3.2 percent) were not resolved by editors. As noted in the discussion of this item in 3.2.2, in iterative pretesting--and also in survey sessions, according to Team Leader reports--many non-Hispanic and non-Asian-Pacific respondents expressed frustration that there was no place to put themselves other than the catch-all "neither" category. Undoubtedly some number of blanks, Don't Knows, and incorrect attributions of Hispanic or Asian-Pacific ethnicity, was born of that frustration. Inclusion of broad categories of origin for other groups--for example, Europe and Africa--while it would provide information of possibly no more than marginal analytic interest, might lessen respondent frustration and error.

Question 3, subpart C, asked how many students in the respondent's grade are Asians or Pacific Islanders. Subparts A and B asked how many students were, respectively, black and Hispanic--there was 3.3 percent nonresponse in respect of blacks, 6.9 percent in respect of Hispanics, and 9.6 percent in respect of Asians/Pacific Islanders. Versions of 3A and 3B (but not of 3C) were asked in the High School and Beyond base year (1980). Nonresponse for HS&B sophomores, asked about proportion of blacks in their ninth grade classes, was 7.6 percent; nonresponse when asked about proportion of Hispanics was 7.5 percent.

```
Q3C       # OF ASIAN STUDENTS IN R'S CLASS

                                                      Valid     Cum
  Value Label                 Value  Frequency  Percent  Percent  Percent

NONE                              0        424     30.8     34.1     34.1
A FEW                             1        670     48.7     53.9     87.9
ABOUT HALF                        2        106      7.7      8.5     96.5
MOST                              3         40      2.9      3.2     99.7
ALL                               4          3       .2       .2     99.9
DK                                8          1       .1       .1    100.0
MULTIPLE                          .          1       .1  MISSING
MISSING                           9        131      9.5  MISSING
                                     -------  -------  -------
                              TOTAL       1376    100.0    100.0

Valid Cases     1244       Missing Cases    132
```

Don't Know was not an explicit response category for this question, nor was this a critical item. The one case of Don't Know recorded in the frequencies reflects an editor's notation upon completing an inadvertent edit of a non-critical item. Since this is a question about students' perceptions which, though grounded in the objective world need not accurately reflect it, there is no independent criterion for judging the strict correctness of these responses. Given the level of awareness of blacks and Hispanics shown by 1980 sophomores, and the only somewhat lower nonresponse levels for 3A and 3B concerning blacks and Hispanics--groups that are more heavily represented in the eighth grade population and perhaps more visible--the 9.5 percent nonresponse figure for this item seems not necessarily indicative of item wording of questionnaire format problems. It may be asked whether an explicit Don't Know category should be given in the base-year version of the question for all three subparts (A, B, C). The High School and Beyond versions of this question did not offer a Don't Know option. Insofar as this question is a trend item, useful in cross-cohort comparisons, maximum parallelism to the High School and Beyond version is desirable. It is also conceivable that some students would find it easier to answer Don't Know than to think about the relative proportions of different groups present in the eighth grade in their schools, thus increasing nonresponse in an altered version. Thus, despite the comparatively high nonresponse for 3C, the only slightly lesser nonresponse rate for 3B, and the fact that some proportion of students genuinely will not know the answer to the question, we do not recommend adding a Don't Know option.

Question 9 is a critical item. It asks if the student receives or has received special services for any of several special conditions. It is then broken into subparts, two of which--C (deafness) and G (other major health problem)--have nonresponse of five percent or higher.

```
Q9C        SPECIAL SERVICES FOR DEAFNESS Critical Item
                                                       Valid     Cum
  Value Label                 Value  Frequency  Percent  Percent  Percent

YES                               1        10       .7       .8       .8
NO                                2      1297     94.3     99.2     99.9
DK                                8         1       .1       .1    100.0
MULTIPLE                          .         0       .0  MISSING
MISSING                           9        68      4.9  MISSING
                                      -------  -------  -------
                              TOTAL      1376    100.0    100.0

Valid Cases     1308       Missing Cases     68
```

```
Q9G        SPECIAL SERVICE FOR OTHER MAJOR HEALTH PROBLEM Critical Item

                                                       Valid     Cum
  Value Label                 Value  Frequency  Percent  Percent  Percent

YES                               1        91      6.6      7.0      7.0
NO                                2      1206     87.6     92.8     99.8
DK                                8         2       .1       .2    100.0
MULTIPLE                          .         0      0.0  MISSING
MISSING                           9        77      5.6  MISSING
                                      -------  -------  -------
                              TOTAL      1376    100.0    100.0

Valid Cases     1299       Missing Cases     77
```

An explicit Don't Know option was not provided. However, survey teams were to edit this item, and a Don't Know, Refusal, or a meaningful response should have been obtained by the editor. Nonresponse was in the nature of illegitimate blanks, which ran above or near to five percent on both questions. This shows the need for some improvement in the Survey Day edit, particularly since it is not clear that the missing data represent an unstated Don't Know. (It seems implausible to suppose, for example, that one student out of twenty simply does not know whether he or she has ever received special services for the problem of deafness.)

Question 9G offers a write-in option so that the other major health problem can be specified. Examination of the hardcopy questionnaires revealed that in a few (< 5 percent) cases students wrote in health problems that might not be major or chronic (for example, throat infection) but that their responses were normally plausible. They ranged from rare problems (for example, brain surgery for a subarachnoid cyst) to the more common (heart murmurs, hormone therapy for slow growth), with over half the cases having to do with either allergy or asthma. Indeed, if it were desired to sort out the "other health problems" in a way that would produce more specific data, this could best be done through the addition of an asthma/severe allergy response category.

PARENTAL OCCUPATION SERIES

The parental occupation question series is intended to be parallel to that used in NLS-72 and HS&B, which in turn drew on Census occupation categories. The HS&B version of the occupation question has been very slightly simplified for eighth graders. We still found, in the iterative pretesting, however, that these categories were cumbersome and frustrating for eighth graders to use, and it was sometimes unclear whether the categories were being used accurately. Earlier in this report (3.2.2) in the discussion of the in-house edit of the student questionnaire, we noted that the parental occupation question registered a high retrieval rate, a high in-school edit error rate, and a high nonresponse rate. Nevertheless, the occupation series is especially important, because it, along with the parental education series, forms the basis for constructing (as in NLS-72 and HS&B) a composite socioeconomic status (SES) variable. SES, in turn, is of course a critical independent variable for the analysis of educational and career outcomes. Since the parent questionnaire contains parallel occupation and education items, we were able to compare student and parent reports (3.2.7). Quite apart from the issue of whether students or parents are better sources of this information, it is clear from the response frequencies below that even after the critical item edit, considerable nonresponse remained in the student occupation reports.

```
Q13A     OCCUPATION CATEGORY OF R'S FATHER Critical Item

                                                              Valid     Cum
 Value Label                       Value  Frequency  Percent  Percent  Percent

CLERICAL                              1        35      2.5      3.0      3.0
CRAFTSPERSON                          2       181     13.2     15.7     18.7
FARMER FARM MANAGER                   3        10       .7       .9     19.6
HOMEMAKER/HOUSEWIFE                   4        10       .7       .9     20.5
LABORER                               5        87      6.3      7.5     28.0
MANAGER/ADMINISTRATOR                 6       178     12.9     15.4     43.5
MILITARY                              7        32      2.3      2.8     46.2
OPERATIVE                             8       140     10.2     12.1     58.4
PROFESSIONAL 1                        9        83      6.0      7.2     65.6
PROFESSIONAL 2                       10        36      2.6      3.1     68.7
PROPRIETOR OR OWNER                  11        86      6.3      7.5     76.1
PROTECTIVE SERVICE                   12        26      1.9      2.3     78.4
SALES                                13        63      4.6      5.5     83.9
SCHOOL TEACHER                       14         7       .5       .6     84.5
SERVICE                              15        17      1.2      1.5     85.9
TECHNICAL                            16        40      2.9      3.5     89.4
NEVER WORKED                         17         2       .1       .2     89.6
REFUSED                              97         4       .3       .3     89.9
DK                                   98       116      8.4     10.1    100.0
MULTIPLE                              .       131      9.5  MISSING
MISSING                              99        92      6.7  MISSING
                                          -------  -------  -------
                                  TOTAL      1376    100.0    100.0

Valid Cases     1153        Missing Cases    223
```

Q13B OCCUPATION CATEGORY OF R'S MOTHER Critical Item

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
CLERICAL	1	244	17.7	20.3	20.3
CRAFTSPERSON	2	27	2.0	2.2	22.5
FARMER FARM MANAGER	3	8	.6	.7	23.2
HOMEMAKER/HOUSEWIFE	4	308	22.4	25.6	48.8
LABORER	5	12	.9	1.0	49.8
MANAGER/ADMINISTRATOR	6	90	6.5	7.5	57.3
OPERATIVE	8	35	2.5	2.9	60.2
PROFESSIONAL 1	9	112	8.1	9.3	69.6
PROFESSIONAL 2	10	13	.9	1.1	70.6
PROPRIETOR OR OWNER	11	35	2.5	2.9	73.5
PROTECTIVE SERVICE	12	3	.2	.2	73.8
SALES	13	52	3.8	4.3	78.1
SCHOOL TEACHER	14	62	4.5	5.2	83.3
SERVICE	15	77	5.6	6.4	89.7
TECHNICAL	16	18	1.3	1.5	91.2
NEVER WORKED	17	21	1.5	1.7	92.9
REFUSED	97	3	.2	.2	93.2
DK	98	82	6.0	6.8	100.0
MULTIPLE	.	111	8.1	MISSING	
MISSING	99	63	4.6	MISSING	
	TOTAL	1376	100.0	100.0	

Valid Cases 1202 Missing Cases 174

For paternal occupation, nonresponse totals a very unhappily high 24.6 percent. However, only 6.7 percent of that owes to illegitimate blanks--93.3 percent of respondents gave an answer to the question, although this rate reflects in part the retrieval efforts of the on-site editor. Even after in-school edit, multiple responses ran to 9.5 percent of the total. Multiple response at such a high rate indicates strongly that respondents found the response categories difficult to use. (While multiple response is generally to be explained in terms of confusion as to which category best applies to a parent, a rare exception identified in hardcopy edit was the case of a parent having two full-time jobs.)

Students did better--though not well--with maternal occupation. This is perhaps owing to a less various female participation in the labor force (over 40 percent of mothers were classified as homemakers or clerical workers). The overall pattern, however, parallels that found for father's occupation. The most common kind of nonresponse was multiple response (8.1 percent), followed by Don't Knows (6 percent) and finally illegitimate blanks (4.6 percent). When this level of nonresponse is compared to High School and Beyond in 1980, we see that HS&B sophomores did substantially better than NELS:88 field test eighth graders and that HS&B seniors did better than sophomores. (On paternal occupation, nonresponse for 1980 seniors was 12.7 percent, for 1980 sophomores 15.6 percent, and for 1987 eighth graders 24.6 percent.) Clearly, occupational knowledge is in part a function of cognitive maturity or age and many students are not good reporters of parental occupation data in early adolescence.

Of equivalent importance in constructing an SES composite variable is parental education. Parental education items pose the same difficulty as occupation questions when asked of adolescents: their information improves rapidly over time but is not necessarily good at eighth grade. In the base year of High School and Beyond, the paternal education item generated 15.6 percent nonresponse among seniors (10.5 percent Don't Know and 2.9 percent multiple response) and 23.2 percent among sophomores (including 16.9 percent Don't Know and four percent multiple response). The year 17 assessment of NAEP solicited data from 27,668 seventh graders and 39,572 eleventh graders. It too illustrates the striking variation in parental education reports by age. The composite parent education measure depends on having a report on at least one parent. This condition is fulfilled for all but 4.6 percent of the eleventh graders but is not satisfied for 15.3 percent of seventh graders. Mother's education elicited a Don't Know or missing response for 6.9 percent of 11th graders and 20.4 percent of 7th graders; father's education shows 10.5 percent nonresponse for eleventh graders but 20.5 percent nonresponse for seventh graders. These data underscore the need to ask educational attainment information about both parents, since missing data for each parent is much higher than the rate of missing data for one parent or the other. In the light of the NAEP and HS&B experience, the response frequencies below (which reflect no on-site retrieval; this was not a critical item) are unsurprising.

PARENTAL EDUCATION SERIES

```
Q14A       HIGHEST LEVEL OF ED R'S FATHER COMPLETED

                                                       Valid     Cum
  Value Label                Value  Frequency  Percent  Percent  Percent

< H.S. DIPLOMA                   1        122      8.9     10.2     10.2
HIGH SCHOOL DIPLOMA              2        285     20.7     23.9     34.1
VOC,TRADE,BUS,< 2YRS             3         23      1.7      1.9     36.1
VOC,TRADE,BUS,> 2YRS             4         24      1.7      2.0     38.1
COLL PROG < 2YRS                 5         60      4.4      5.0     43.1
COLL PROG 2YRS OR >              6         85      6.2      7.1     50.3
FINISHED COLLEGE                 7        163     11.8     13.7     63.9
MASTERS DEGREE                   8         88      6.4      7.4     71.3
PH.D OR M.D.                     9         48      3.5      4.0     75.3
DK                              98        294     21.4     24.7    100.0
MULTIPLE                         .         92      6.7  MISSING
MISSING                         99         92      6.7  MISSING
                                    -------  -------  -------
                             TOTAL     1376    100.0    100.0

Valid Cases     1192      Missing Cases    184
```

Q14B HIGHEST LEVEL OF ED R'S MOTHER COMPLETED

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
< H.S. DIPLOMA	1	125	9.1	10.3	10.3
HIGH SCHOOL DIPLOMA	2	360	26.2	29.7	40.0
VOC,TRADE,BUS,< 2YRS	3	36	2.6	3.0	43.0
VOC,TRADE,BUS,> 2YRS	4	35	2.5	2.9	45.9
COLL PROG < 2YRS	5	59	4.3	4.9	50.7
COLL PROG 2YRS OR >	6	97	7.0	8.0	58.7
FINISHED COLLEGE	7	162	11.8	13.4	72.1
MASTERS DEGREE	8	59	4.3	4.9	77.0
PH.D OR M.D.	9	25	1.8	2.1	79.0
DK	98	254	18.5	21.0	100.0
MULTIPLE	.	99	7.2	MISSING	
MISSING	99	65	4.8	MISSING	
	TOTAL	1376	100.0	100.0	

Valid Cases 1212 Missing Cases 164

Thus we see 34.8 percent nonresponse on father's education and 30.5 percent on mother's education. A crosstabulation of 14A by 14B shows that in 322 cases (23 percent) we have education data on neither parent. It is interesting to note the nature of the nonresponse. For both paternal and maternal education, more nonresponse falls into the Don't Know category than into multiple response and illegitimate blanks combined. Though illegitimate blanks are the smallest part of the nonresponse problem, making this item critical might reduce the number of illegitimate blanks--unless these are predominantly hidden Don't Knows. An in-school edit could also lessen the number of multiple responses--although machine-cleaning can readily give multiple answers univocal determination in a hierarchically organized question such as this one, by systematically selecting the highest category marked. Multiple response may also be lowered by collapsing some of the categories which utilize fine distinctions of which students are unlikely to be cognizant. Many students will not know whether their mother or father completed less than two years of vocational, trade, or business school, or whether the parent completed two years or more of vocational, trade, or business school. Still, the high rates of nonresponse on the parental occupation and education questions constitute a significant obstacle to creation of a reliable and valid composite SES variable. In addition to the matter of nonresponse, a further question is the quality of the responses that were given. This issue will be addressed in 3.2.7, where we compare data provided by students with the information supplied by their parents.

Question 18 inquires into parental involvement in the school. It has four subparts. Part A is concerned with parental participation in school meetings. Part B inquires about parental conversations with teachers or counselors. Part C asks about visits to classes, and Part D about attendance at a school event where the student participated. Parts A, B and C were high nonresponse items.

```
Q18A      HAVE R'S PARENTS ATTENDED A SCH MEETING

                                                      Valid     Cum
  Value Label                 Value  Frequency  Percent  Percent  Percent
YES                               1        704     51.2     52.6     52.6
NO                                2        505     36.7     37.7     90.4
DK                                8        129      9.4      9.6    100.0
MISSING                           9         38      2.8  MISSING
                                       -------  -------  -------
                              TOTAL       1376    100.0    100.0

Valid Cases     1338      Missing Cases     38
```

```
Q18B      HAVE R'S PARENTS SPOKEN TO R'S TEACHER

                                                      Valid     Cum
  Value Label                 Value  Frequency  Percent  Percent  Percent

YES                               1        791     57.5     58.5     58.5
NO                                2        420     30.5     31.0     89.5
DK                                8        142     10.3     10.5    100.0
MISSING                           9         23      1.7  MISSING
                                       -------  -------  -------
                              TOTAL       1376    100.0    100.0

Valid Cases     1353      Missing Cases     23
```

```
Q18C      HAVE R'S PARENTS VISITED THE CLASSROOM

                                                      Valid     Cum
  Value Label                 Value  Frequency  Percent  Percent  Percent

YES                               1        414     30.1     31.0     31.0
NO                                2        841     61.1     63.0     94.0
DK                                8         80      5.8      6.0    100.0
MISSING                           9         41      3.0  MISSING
                                       -------  -------  -------
                              TOTAL       1376    100.0    100.0

Valid Cases     1335      Missing Cases     41
```

In all three cases, nonresponse is concentrated in the Don't Know category. It does not seem that Don't Know is being used as an "easy out"--the question is not overly demanding, and there is good variance in the use of this option from subpart to subpart (the Don't Know responses in question 18 range from 3.3 percent in 18D to 10.3 percent in 18B). The Don't Know rates also seem perfectly plausible, given the nature of the question. Finally, it should be noted that the purpose of the question is as much or more to probe student perceptions as to ascertain objective facts (parent reports of parental behavior are likely to be far more accurate). From this perspective, the Don't Know responses are an important datum rather than a nonresponse problem. We recommend no changes in item wording or in questionnaire format in connection with question 18.

Question 23B is a modification of a High School and Beyond item (23A). While 23B asks about television viewing on weekends and is a problematic variable (8.9 percent nonresponse), 23A asks about television viewing on weekdays and is unproblematic (4.5 percent nonresponse). It is difficult to know in what way the concept of a weekend differs from the concept of a weekday such that students find it harder to respond to the one case than the other. Nor is this difference readily attributable to format, since the second element formed a second column to be answered in precisely the same way as the first. In other instances in which this format was used (cf. question 27) we see no response advantage for the first element. However, it may be that a number of students completed part A and assumed they were finished with the question--that, in effect, the question was disjunctive, a case of answer either A or B, analogous to the "Circle One" options offered in other items. In addition to the separate instruction "Mark One Oval Below" attached to each half of the question, a general instruction--"Answer Both A <u>and</u> B below" should be added. Also, the designation HOURS PER DAY in the question should be printed in bold, so that no confusion can arise as to whether viewing time for Saturday and Sunday should be summed or averaged.

```
Q23B       HOW MANY HOURS ON WEEKENDS R WATCHES TV

                                                          Valid     Cum
  Value Label                 Value  Frequency  Percent  Percent  Percent

DO NOT WATCH TV                   0         33      2.4      2.6      2.6
> THAN 1 HOUR A DAY               1         63      4.6      5.0      7.7
1-2 HOURS                         2        125      9.1     10.0     17.6
2-3 HOURS                         3        206     15.0     16.4     34.1
3-4 HOURS                         4        237     17.2     18.9     53.0
4-5 HOURS                         5        210     15.3     16.7     69.7
OVER 5 HOURS A DAY                6        380     27.6     30.3    100.0
                                  .        122      8.9  MISSING
                                     -------  -------  -------
                              TOTAL       1376    100.0    100.0

Valid Cases     1254      Missing Cases    122
```

Question 27 is taken from High School and Beyond and NLS-72 and asks how far in school the respondent thinks his parents would like him to go. Since the purpose of this question is to elicit the student's perceptions, and it is of interest to know those cases in which parents have not made their aspirations for their children known to them, a high rate of legitimate nonresponse--Don't Know--would not in itself be disturbing for this question. However, the response frequencies show--particularly for the father (27A)--a disturbing number of illegitimate blanks.

```
Q27A      HOW FAR IN SCH DOES R'S FATHER WANT R TO GO

                                                    Valid      Cum
 Value Label               Value  Frequency  Percent  Percent  Percent

WILL NOT FINISH H.S            1          8       .6       .7       .7
GRADUATE FROM H.S              2         46      3.3      4.0      4.7
VOC/TRADE/BUSINESS             3         46      3.3      4.0      8.6
ATTEND COLLEGE                 4         85      6.2      7.3     16.0
GRAD FROM COLLEGE              5        492     35.8     42.5     58.4
HIGHER AFTER COLLEGE           6        342     24.9     29.5     87.9
DK                             8        140     10.2     12.1    100.0
MULTIPLE                       .         49      3.6  MISSING
MISSING                        9        168     12.2  MISSING
                                    -------  -------  -------
                           TOTAL       1376    100.0    100.0

Valid Cases     1159      Missing Cases    217
```

```
Q27B      HOW FAR IN SCH DOES R'S MOTHER WANT R TO GO

                                                    Valid      Cum
 Value Label               Value  Frequency  Percent  Percent  Percent

WILL NOT FINISH H.S            1         10       .7       .8       .8
GRADUATE FROM H.S              2         44      3.2      3.5      4.3
VOC/TRADE/BUSINESS             3         47      3.4      3.7      8.0
ATTEND COLLEGE                 4         99      7.2      7.8     15.8
GRAD FROM COLLEGE              5        564     41.0     44.5     60.3
HIGHER AFTER COLLEGE           6        380     27.6     30.0     90.4
DK                             8        122      8.9      9.6    100.0
MULTIPLE                       .         58      4.2  MISSING
MISSING                        9         52      3.8  MISSING
                                    -------  -------  -------
                           TOTAL       1376    100.0    100.0

Valid Cases     1266      Missing Cases    110
```

High School and Beyond asked only about the mother's aspirations for the child's educational achievement, not the father's. Nonresponse for 1980 sophomores was 25.5 percent, including 18 percent Don't Know. For 1980 seniors nonresponse was 20.4 percent (with 16.4 percent Don't Know). For 1987 eighth graders, nonresponse was 16.9 percent on the mother's aspirations item (with 8.9 percent Don't Know)--a much lower rate of nonresponse than in HS&B. However, nonresponse on the father's aspirations question was higher than for the maternal aspirations question, at 26 percent, with 10.2 percent legitimate nonresponse (Don't Know). It is not clear why there are so many more illegitimate blanks on the paternal aspirations question (triple the number for the mother, though a Don't Know option was available). If certain questions that are now subject to in-school edit are dropped from the base year student questionnaire (for example, the parental occupation and education questions) this question might be considered a candidate for in-school edit. Multiple response was actually greater in the mother- than the father-targeted question (4.2 versus 3.6 percent). Given the hierarchical order of response categories, multiple response can be successfully treated by recognizing as valid only the highest category named.

Question 28 should be compared to locator question 13 (What kind of school is it: General; College preparatory; Trade or Vocational; Other). In the earlier question we found considerable nonresponse and evidence of confusion as to the meaning of the response options. In question 28, we see high nonresponse as students confront a similar set of labels, this time in connection with program type.

```
Q28       WHICH H.S PROGRAMS WILL YOU ENROLL IN

                                                          Valid     Cum
  Value Label                 Value  Frequency  Percent  Percent  Percent

ACADEMIC/COLL PREP                1        458     33.3     34.4     34.4
VOCATIONAL (TRADE)                2         94      6.8      7.1     41.4
GENERAL                           3        242     17.6     18.2     59.6
OTHER                             4        157     11.4     11.8     71.3
DK                                8        382     27.8     28.7    100.0
MULTIPLE                          .         27      2.0  MISSING
MISSING                           9         16      1.2
                                       -------  -------  -------
                              TOTAL       1376    100.0    100.0

Valid Cases     1333      Missing Cases     43
```

The number of illegitimate blanks is quite small, at just over one percent, and multiple responses stand at two percent. Nonresponse is heavily concentrated in the Don't Know category. What is important here is to be able to be absolutely certain that respondents who choose the Don't Know response in fact lack knowledge of what program they will enroll in--and that they have not chosen Don't Know simply because an unfamiliar label is being used to describe program type. Thus the recommendation for this item is much the same as that for locator question 13: we will try to gloss program type with alternative, and we hope more familiar descriptors. If the Don't Know category continues to be heavily utilized, there probably is a genuine lack of knowledge about program type. The questionnaire data themselves give some reason to suppose that high school program knowledge is not necessarily widely disseminated in the field test schools. Question 31 shows that less than a quarter of the sample has received vocational education information. Over half had had no conversations with their teachers about high school (29D). Note too that in question 30A, which has only 2.3 percent nonresponse, 62.5 percent of this sample indicate that they have not talked with a guidance counselor about high schools and high school programs, and only 18 percent have talked to a counselor about high school two or more times. A parallel item about planning high school program (29C) will be analyzed below for nonresponse. It too suggests little contact with counselors in regard to planning for high school.

Question 29 asks how often the respondent has talked to parents, counselors, teachers, or relatives and friends about planning a program for high school. One element--29C, pertaining to talks with guidance counselors--had high nonresponse.

Q29C HOW OFTEN R TALK W/A GUIDANCE COUNSELOR

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
NOT AT ALL	0	919	66.8	72.7	72.7
ONCE OR TWICE	1	272	19.8	21.5	94.2
THREE OR MORE TIMES	2	73	5.3	5.8	100.0
MISSING	9	112	8.1	MISSING	
	TOTAL	1376	100.0	100.0	

Valid Cases 1264 Missing Cases 112

It is not clear why illegitimate blanks ran to 8.1 percent in this question. Were there a format problem, one would expected parts A, B, D and E to be plagued with high nonresponse but none are. If the problem is one of knowledge--of not remembering, and not having a Don't Know category--it is puzzling to consider that 30A, with essentially the same content, has only 2.3 percent nonresponse. The response frequencies offer no clear suggestion as to why a comparatively high number of illegitimate blanks should appear on question 29C.

Question 33 asks whether the respondent has taken any special test that would indicate aptitude for a particular career or job. Nearly a quarter of respondents do not know whether they have done so or not.

Q33 DID R TAKE TEST INDICATING APTITUDE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
YES	1	288	20.9	21.7	21.7
NO	2	699	50.8	52.7	74.4
DK	8	340	24.7	25.6	100.0
MISSING	9	49	3.6	MISSING	
	TOTAL	1376	100.0	100.0	

Valid Cases 1327 Missing Cases 49

Since it was realized that the meaning of aptitude might not be clear to all eighth graders, it was explained parenthetically in the question as "potential talent or capability"—but even to know what aptitude is is not necessarily to have a basis for being certain whether one has taken an aptitude test. Perhaps named examples of the most common aptitude tests could be given here. It is not clear, however, that all students will know by name the tests that they have been given. It is also possible that removing the Don't Know option would force some respondents into making a fairly reliable educated guess about whether tests they had taken were or were not aptitude batteries. This, however, would certainly increase the number of illegitimate blanks. We recommend that the major aptitude tests that an eighth grader might be exposed to be specifically named as examples. This will increase the clarity of the question. We strongly suspect, however, that while teachers, counselors, and principals could supply such information without difficulty, there will be many eighth graders who will not be able to answer this question, even in modified form.

Question 34 is taken from High School and Beyond and is an important question for longitudinal analysis. We know that occupational expectations will be more developed later in adolescence, and that eighth graders are likely to feel more uncertainty in this matter than will tenth or twelfth graders. Thus a high Don't Know rate is not necessarily damaging for this baseline question, but multiple response and illegitimate blanks constitute a genuine nonresponse problem.

Q34 WHAT KIND OF WORK R WILL BE DOING AT 30

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
CRAFTPERSON/OPERATOR	1	42	3.1	3.3	3.3
FARMER/FARM MANAGER	2	5	.4	.4	3.7
HOUSEWIFE/HOMEMAKER	3	13	.9	1.0	4.7
LABORER/FARM WORKER	4	7	.5	.6	5.3
MILI/POLICE/SECURITY	5	103	7.5	8.1	13.4
BUSINESS/MANAGERIAL	6	350	25.4	27.7	41.1
OWNER	7	67	4.9	5.3	46.4
TECHNICAL	8	90	6.5	7.1	53.5
SALESPERSON/CLERICAL	9	33	2.4	2.6	56.1
SCIENCE/ENGINEERING	10	77	5.6	6.1	62.2
SERVICE WORKER	11	27	2.0	2.1	64.3
OTHER	12	282	20.5	22.3	86.6
NOT WORKING	13	1	.1	.1	86.7
DK	98	168	12.2	13.3	100.0
MULTIPLE	.	80	5.8	MISSING	
MISSING	99	31	2.3	MISSING	
	TOTAL	1376	100.0	100.0	

Valid Cases 1265 Missing Cases 111

In fact we see that while there is 20 percent nonresponse overall, 12 percent of that is Don't Know. Multiple responses are the principal illegitimate nonresponse problem. Additional emphasis should be put in the question instructions to choose only one occupational category. Students should be explicitly told that in the event of uncertainty, they should choose the occupation category in which they are most likely to be employed at age 30, and that they should not indicate more than one response.

ABILITY GROUP SERIES

One of the major issues to be explored by NELS:88 is the dynamics of tracking. Ability grouping information is sought from both the student, and two of the student's teachers (representing two of the four tested curriculum areas). Question 43 asks students what ability group they are in for each of the four subject areas covered by the cognitive test battery--mathematics, English, science and social studies. Ability grouping is a feature of some subject areas more than others. Mathematics tends to be the most heavily tracked subject, Social Studies perhaps the least. We anticipated that there might be more Don't Know response in subjects in which ability grouping is less explicit or common.

Q43A WHAT ABILITY GROUP IS R FOR MATHEMATICS Critical Item

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
HIGH	1	430	31.3	31.5	31.5
MIDDLE	2	500	36.3	36.6	68.1
LOW	3	107	7.8	7.8	76.0
WE AREN'T GROUPED	4	252	18.3	18.5	94.4
REFUSED	7	1	.1	.1	94.5
DK	8	75	5.5	5.5	100.0
	.	4	.3	MISSING	
MISSING	9	7	.5	MISSING	
		-------	-------	-------	
	TOTAL	1376	100.0	100.0	

Valid Cases 1365 Missing Cases 11

Q43B WHAT ABILITY GROUP IS R FOR SCIENCE Critical Item

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
HIGH	1	289	21.0	21.2	21.2
MIDDLE	2	517	37.6	38.0	59.2
LOW	3	67	4.9	4.9	64.1
WE AREN'T GROUPED	4	397	28.9	29.2	93.3
REFUSED	7	1	.1	.1	93.4
DK	8	90	6.5	6.6	100.0
MULTIPLE	.	6	.4	MISSING	
MISSING	9	9	.7	MISSING	
		-------	-------	-------	
	TOTAL	1376	100.0	100.0	

Valid Cases 1361 Missing Cases 15

```
Q43C      WHAT ABILITY GROUP IS R FOR ENGLISH Critical Item

                                                        Valid     Cum
  Value Label                  Value  Frequency  Percent  Percent  Percent

HIGH                               1       335     24.3     24.5     24.5
MIDDLE                             2       510     37.1     37.4     61.9
LOW                                3        90      6.5      6.6     68.5
WE AREN'T GROUPED                  4       353     25.7     25.9     94.4
REFUSED                            7         1       .1       .1     94.4
DK                                 8        76      5.5      5.6    100.0
MULTIPLE                           .         4       .3  MISSING
MISSING                            9         7       .5  MISSING
                                   -------  -------  -------
                              TOTAL      1376    100.0    100.0

Valid Cases     1365      Missing Cases     11
```

```
Q43D      WHAT ABILITY GROUP FOR SOCIAL STUDIES Critical Item

                                                        Valid     Cum
  Value Label                  Value  Frequency  Percent  Percent  Percent

HIGH                               1       291     21.1     21.3     21.3
MIDDLE                             2       499     36.3     36.6     58.0
LOW                                3        72      5.2      5.3     63.2
WE AREN'T GROUPED                  4       405     29.4     29.7     93.0
REFUSED                            7         1       .1       .1     93.0
DK                                 8        95      6.9      7.0    100.0
MULTIPLE                           .         4       .3  MISSING
MISSING                            9         9       .7  MISSING
                                   -------  -------  -------
                              TOTAL      1376    100.0    100.0

Valid Cases     1363      Missing Cases     13
```

Nonresponse for these critical items varied within a narrow range, from a high of 7.9 percent for Social Studies to a low of 6.3 percent for Mathematics. Illegitimate nonresponse--multiple response and blanks--ranges from a high of 1.1 percent for science to a low of .8 percent for mathematics and English. If the Don't Know responses largely reflect a true lack of knowledge about the object of the question, nonresponse is already exceptionally low and probably can at best be marginally improved upon.

ATTITUDES TOWARD SCHOOL SUBJECTS SERIES (Q. 49-52)

Questions 49 through 52 are sponsored by the National Science Foundation. They attempt to assess student attitudes toward mathematics and science and, as a point of comparison, English and social studies. Thus all subjects in the cognitive test battery are covered, with items that inquire into whether the respondent finds the subject enjoyable, useful, a class that can be looked forward to, or a class in which the respondent is afraid to raise questions. Thus there are sixteen data elements in the question series, covering four attitude areas for each of the four subjects.

```
Q49A      MATHEMATICS CLASS IS USUALLY FUN

                                                       Valid     Cum
 Value Label                 Value  Frequency  Percent  Percent  Percent

AGREE                            1        805     58.5     60.6     60.6
DISAGREE                         2        459     33.4     34.5     95.1
DK                               8         65      4.7      4.9    100.0
MISSING                          9         47      3.4  MISSING
                                      -------  -------  -------
                             TOTAL       1376    100.0    100.0

Valid Cases     1329      Missing Cases     47
```

```
Q49B      I USUALLY LOOK FORWARD TO MATH CLASS

                                                       Valid     Cum
 Value Label                 Value  Frequency  Percent  Percent  Percent

AGREE                            1        595     43.2     44.7     44.7
DISAGREE                         2        639     46.4     48.0     92.8
DK                               8         96      7.0      7.2    100.0
MISSING                          9         46      3.3  MISSING
                                      -------  -------  -------
                             TOTAL       1376    100.0    100.0

Valid Cases     1330      Missing Cases     46
```

```
Q49D      MATH WILL BE USEFUL IN MY FUTURE

                                                       Valid     Cum
 Value Label                 Value  Frequency  Percent  Percent  Percent

AGREE                            1       1107     80.5     83.2     83.2
DISAGREE                         2        114      8.3      8.6     91.7
DK                               8        110      8.0      8.3    100.0
MISSING                          9         45      3.3  MISSING
                                      -------  -------  -------
                             TOTAL       1376    100.0    100.0

Valid Cases     1331      Missing Cases     45
```

```
Q50A      ENGLISH CLASS IS USUALLY FUN

                                                     Valid     Cum
 Value Label              Value  Frequency  Percent  Percent  Percent

AGREE                         1        766     55.7     57.6     57.6
DISAGREE                      2        503     36.6     37.8     95.3
DK                            8         62      4.5      4.7    100.0
MISSING                       9         45      3.3  MISSING
                                   -------  -------  -------
                          TOTAL       1376    100.0    100.0

Valid Cases     1331      Missing Cases     45

Q50D      ENGLISH WILL BE USEFUL IN MY FUTURE

                                                     Valid     Cum
 Value Label              Value  Frequency  Percent  Percent  Percent

AGREE                         1       1025     74.5     77.0     77.0
DISAGREE                      2        175     12.7     13.1     90.2
DK                            8        131      9.5      9.8    100.0
MISSING                       9         45      3.3  MISSING
                                   -------  -------  -------
                          TOTAL       1376    100.0    100.0

Valid Cases     1331      Missing Cases     45

Q51A      SOCIAL STUDIES CLASS IS USUALLY FUN

                                                     Valid     Cum
 Value Label              Value  Frequency  Percent  Percent  Percent

AGREE                         1        751     54.6     56.8     56.8
DISAGREE                      2        512     37.2     38.7     95.5
DK                            8         60      4.4      4.5    100.0
MISSING                       9         53      3.9  MISSING
                                   -------  -------  -------
                          TOTAL       1376    100.0    100.0

Valid Cases     1323      Missing Cases     53
```

```
Q51B      I USUALLY LOOK FORWARD TO SOCIAL STUDIES

                                                         Valid     Cum
  Value Label                  Value  Frequency  Percent  Percent  Percent

AGREE                              1       623     45.3     47.1     47.1
DISAGREE                           2       635     46.1     48.0     95.2
DK                                 8        64      4.7      4.8    100.0
MISSING                            9        54      3.9  MISSING
                                      -------  -------  -------
                               TOTAL     1376    100.0    100.0

Valid Cases    1322       Missing Cases    54
```

```
Q51D      SOC. STUDIES WILL BE USEFUL IN MY FUTURE

                                                         Valid     Cum
  Value Label                  Value  Frequency  Percent  Percent  Percent

AGREE                              1       671     48.8     50.8     50.8
DISAGREE                           2       421     30.6     31.9     82.7
DK                                 8       228     16.6     17.3    100.0
MISSING                            9        56      4.1  MISSING
                                      -------  -------  -------
                               TOTAL     1376    100.0    100.0

Valid Cases    1320       Missing Cases    56
```

```
Q52D      SCIENCE WILL BE USEFUL IN MY FUTURE

                                                         Valid     Cum
  Value Label                  Value  Frequency  Percent  Percent  Percent

AGREE                              1       799     58.1     60.2     60.2
DISAGREE                           2       326     23.7     24.5     84.7
DK                                 8       203     14.8     15.3    100.0
MISSING                            9        48      3.5  MISSING
                                      -------  -------  -------
                               TOTAL     1376    100.0    100.0

Valid Cases    1328       Missing Cases    48
```

Nine of the sixteen data elements in the series have high (8 percent or above) nonresponse. There is something of a pattern to this nonresponse. For all four subject areas, element D--which asks if the subject will be useful to the student in the future--is problematic. However, for none of the four subjects is element C--inquiring whether the student is afraid to ask questions in class--problematic. In addition, student attitudes seem more crystallized in some subject areas than others. Three of the four data elements are problematic for mathematics and social studies, but only one for science.

Nonresponse in this series ranges from a high of 20.6 percent (of which 16.6 percent is Don't Know) on 51D (Social Studies will be useful for my future) to five percent for 52A (Science class is usually fun). In fact, the four highest nonresponse items are the D elements for each of the four subjects, and the nonresponse is predominantly Don't Know. Thus in terms of judging the future utility of the subject matter, nonresponse was 20.6 percent for social studies, 18.3 percent for science, 12.7 percent for English and 11.3 percent for math.

We do not see any evidence of lack of clarity in this question series. Illegitimate blanks are in the 3 percent range. Don't Knows are high but there is considerable variation from question to question in the extent to which this option is utilized (from 1.8 percent on 49C to 16.6 percent on 51D). This constitutes strong evidence that students are closely reading the questions. Nonresponse in this series would appear to reflect the fact that student attitudes toward their school subjects are in a state of flux or crystallization in early adolescence. It is this rather than difficulties with questionnaire format or item wording that would seem to account for most of the nonresponse recorded here.

EARLY EDUCATIONAL EXPERIENCE SERIES

This series inquires into the early educational experience of the student, asking whether kindergarten, day care, nursery school, Head Start, or extended day school were attended. These questions are also asked in the parent questionnaire--see 3.2.7 for a comparison of student and parent responses. Of the five elements in the series, all are problematic except for the first, kindergarten attendance (4.6 percent nonresponse). The highest nonresponse comes with 56E (extended day school) with 39 percent illegitimate blank or Don't Know, followed by Head Start (33.5 percent nonresponse) and nursery school or preschool (16.6 percent nonresponse).

```
Q56B       DID R GO TO DAY CARE

                                                       Valid     Cum
  Value Label                 Value  Frequency  Percent  Percent  Percent

YES                               1        399     29.0     33.0     33.0
NO                                2        662     48.1     54.8     87.8
DK                                8        148     10.8     12.2    100.0
MISSING                           9        167     12.2  MISSING
                                       -------  -------  -------
                              TOTAL       1376    100.0    100.0

Valid Cases    1209      Missing Cases    167
```

```
Q56C      DID R GO TO NURSERY SCHOOL OR PRESCHOOL

                                                     Valid     Cum
  Value Label               Value  Frequency  Percent  Percent  Percent

YES                             1        718     52.2     57.1     57.1
NO                              2        429     31.2     34.1     91.2
DK                              8        111      8.1      8.8    100.0
MISSING                         9        118      8.5  MISSING
                                     -------  -------  -------
                            TOTAL       1376    100.0    100.0

Valid Cases    1258      Missing Cases    118
```

```
Q56D      DID R GO TO HEAD START

                                                     Valid     Cum
  Value Label               Value  Frequency  Percent  Percent  Percent

YES                             1        159     11.6     13.4     13.4
NO                              2        756     54.9     63.9     77.3
DK                              8        268     19.5     22.7    100.0
MISSING                         9        193     14.0  MISSING
                                     -------  -------  -------
                            TOTAL       1376    100.0    100.0

Valid Cases    1183      Missing Cases    193
```

```
Q56E      DID R GO TO EXTENDED DAY SCHOOL

                                                     Valid     Cum
  Value Label               Value  Frequency  Percent  Percent  Percent

YES                             1         76      5.5      6.5      6.5
NO                              2        764     55.5     65.3     71.8
DK                              8        330     24.0     28.2    100.0
MISSING                         9        206     15.0  MISSING
                                     -------  -------  -------
                            TOTAL       1376    100.0    100.0

Valid Cases    1170      Missing Cases    206
```

Recommendations for these items will be made in the course of the cross-validation analysis of student and parent reports (3.2.7).

3.2.4 Inter-Item Consistency

Comparisons among a respondent's answers to related questions (inter-item consistency checks) provide one important means of assessing the accuracy or quality of data for a given item. If such a comparison reveals a high degree of inconsistency, then both items must be closely scrutinized to see which is more conducive to accurate reporting--or alternative and more effective ways of eliciting the intended information must be sought.

Because of the need to minimize respondent burden and to cover as many topics as possible in a short time, there are few instances in the field test student questionnaire of items that are close enough in their focus to support close comparisons. Neverthelesss, a small amount of content overlap does, by design, occur, and permits testing of alternative questions and formats. A good example of such overlap is found in two pairs of questions concerning special programs and conditions--questions 48C and 9E on services for orthopedic impairment, and questions 48D and 9F on special services for learning problems. Neither question had high nonresponse.

The logical structure of these questions is not one of strict identity, but of a broader category (embodied in question 9) under which the narrower category (question 48) can be subsumed. Question 9 asks "do you or have you received special services for" either of the two named conditions. Question 48 asks whether the respondent is currently enrolled in the services. Anyone who answers yes to question 48 must, on pain of contradiction, answer yes to question 9. However, one could consistently answer no to 48 but yes to 9 and one could consistently answer no to both 48 and 9. Contradiction arises when one answers yes to 48 but no to 9, as illustrated in the square of relationship below:

	(time reference):	(now)	(ever)
modality	relationship	Q.48	Q.9
necessary	CONSISTENT	YES	YES
possible	CONSISTENT	NO	YES or NO
necessary	CONTRADICTORY	YES	NO

A further twist to the analysis of the question pairs 48C/9D and 48D/9F is that parallel questions are asked of an additional source, the student's parents. Although we have generally made parent-student data comparisons in a later section, it seemed appropriate to include a discussion of the parent parallels for these items here. The relationship between the parent and student questions may be depicted as follows [where arrows denote a relationship of necessary equivalence for purposes of a consistency analysis--as in the entailment that everyone who answers yes to 48C must, on pain of contradiction, answer yes to 9E; and the relationship between, for example, 9E and 3-2E where identical questions are asked about the student and only the respondent (eighth grader or parent) differs]:

$$\begin{tikzcd}
\text{STUDENT ITEM} & \text{PARENT ITEM} \\
48C \arrow[r, leftrightarrow] \arrow[d] & 3\text{-}12C \arrow[d] \\
9E \arrow[r, leftrightarrow] & 3\text{-}2E
\end{tikzcd}$$

Thus four possible relationships are necessarily inconsistent if responses to both terms do not agree. A student contradicts himself if he answers yes to 48C but not to 9E; a parent contradicts himself if he answers yes to 3-22C but not to 3-2E. Students and parents contradict each other when they respond differently to 48C (student question) and 3-12C (parent question) or to 9E and 3-2E.

3.2.4.1 Orthopedic handicap: 9E versus 48C (Student Self-Consistency)

First let us examine the inter-item consistency between Question 9E and Question 48C. Question 9E asks "Do you or have you received special services for any or all of the following conditions?...(e) Orthopedically impaired (for example, club foot, absence of arm or leg, cerebral palsy, amputation, polio)". Question 48C asks "Are you enrolled in any of the following...(c) special services for the orthopedically handicapped." Question 9E also appears on the parent questionnaire (Part 3, 2E) as does 48C (Part 3, 12C). Please refer to Table 3-8 below for the crosstabulation of 9E and 48C. (This table reflects all students who answered both questions.)

TABLE 3-8

CROSSTABULATION OF Q.9E AND 48C

Q48C	YES	NO	TOTAL
Q9E			
YES	1	33	34
NO	30	1179	1209
TOTAL	31	1212	1243

Some 1,179 respondents answered no to both questions--they were not enrolled in programs for the orthopedically impaired now, nor had they ever been enrolled in these types of programs. One respondent answered yes to both questions. So consistency when both questions are answered occured 95 percent of the time. There were also 133 observations that were missing (either one or both of the questions had been left blank so no comparison could be made).

While the overwhelmingly negative response to these items underwrites consistency 95 percent of the time, it is of course those who answer affirmatively--and indicate that they have received such services--who are of special policy interest. If we restrict ourselves to those who answered yes to either of the items, of 64 students who answered yes to one form or the other of the question, only one student said yes both times. However, owing to the different time reference in the two items, only thirty of these cases are necessarily inconsistent--those who who said "yes" they were currently enrolled in a program for the condition of being orthopedically impaired (Q48) but who answered "no" when asked more generally in Question 9--"have you ever received special services for this condition?". Question 9E has the advantage of having "orthopedically impaired" graphically defined by listing examples (club foot, absence of arm or leg, cerebral palsy, amputation, polio). Question 48 does not list these examples. Since question 9 is richer in examples, and presumably therefore in clarity, one would suppose that it has captured the more accurate reports. This surmise can be to some degree confirmed (or disconfirmed) by reference to what the students' parents reported (they answered a version of 9E, complete with the same examples). But before we ask whether parent reports are in closer agreement with 9E--or with 48C--we will examine the question of inter-item consistency on the two versions of the orthopedic question in the parent questionnaire. Are parent reports on these items more consistent than those of students?

3.2.4.2 Orthopedic handicap: 3-2E versus 3-12C (Parent Self Consistency)

An inter-item consistency check was performed on the two parent questions (Q3-2E and 3-12C). Some 703 parents (99 percent) indicated their child was not enrolled in a special service now for an orthopedic problem nor had they ever been. Eight parents answered yes to the general question that their child had at some time received special services, but also answered that the child was not enrolled in a service now. This response is not inconsistent, and the inter-item consistency check thus shows the parents as 100 percent consistent. See Table 3-9 on the following page.

TABLE 3-9

CONSISTENCY CHECK BETWEEN Q12C AND Q3.2E

Q12C Q3.2E	YES	NO	TOTAL
YES	0	8	8
NO	0	703	703
TOTAL	0	711	711

3.2.4.3 Orthopedic handicap: 3-2E versus 9E; 3-12C versus 48C (Parent-Student Consistency)

A comparison of the student's answer to Question 9E and the parent's answer to Question 3.2E (Parent Questionnaire) could be made in 670 cases where both student and parent data were collected. Agreement between parents and students occurred 96 percent of the time. (Both student and parent answered yes or both parent and student answered no). However, it is again the few but critical yes responses that show inconsistency--there is little correspondence in student-parent answers, whichever party says yes. Eight parents said that their child had received services for an orthopedic problem but only two students (25 percent) admitted receiving these services. The 21 students who affirmed enrollment were contradicted 19 times by their parents. Some 662 parents answered no to the question and 643 (97 percent) of the students agreed with them. Please see Table 3-10A.

TABLE 3-10A

CONSISTENCY CHECK BETWEEN Q3.2E AND Q9E

Q3.2E(Parents) Q9E(Students)	YES	NO	TOTAL
YES	2	19	21
NO	6	643	649
TOTAL	8	662	670

A comparison of the student's answer to Q48C and the parent's answer to Q12C (Parent Questionnaire) could be made in 663 cases where both student and parent data were collected. Agreement between parents and student occurred 98 percent of the time ONLY when both parent and student answered no to these questions. When the student answered yes, they were enrolled in a special service their parents disagreed with them 100 percent of the time. (See Table 3-10B below.)

TABLE 3-10B

CONSISTENCY CHECK BETWEEN Q12C AND Q48C

Q12C(Parents)	YES	NO	TOTAL
Q48C(Students)			
YES	0	16	16
NO	0	647	647
TOTAL	0	663	663

We telephoned a subsample of ten of the respondent pairs whose answers were contradictory. It was consistently the case that students and parents were interpreting the questions differently. In most cases, the affirmative student reply on 9E was based on a broken limb--a condition that the parent was equally aware of, but adjudged not chronic, and to be outside the intentions of the question. Here student error was abetted by the examples of orthopedic problems--club foot, absence of limbs, and so on--so that the student classed fractured or broken limbs as orthopedic impairments. Another area of ambiguity uncovered was as to whether screening procedures--or only treatment--should be considered a service under the terms of the question. For question 48C, however, which gave no examples, students often seemed not to have misunderstood the meaning of orthopedic--despite having correctly interpreted it, with the help of the examples, earlier (9E). It was our conclusion that while both sets of respondents were attempting to give honest and correct answers, parents were decidedly superior interpreters of the meaning of the handicap services questions.

In sum, while overall inconsistency on the orthopedic services questions was low, when analysis is limited to affirmative responses, inconsistency is extremely high. Thirty out of thirty-one students who answered "yes" to 48C contradicted themselves on 9E. However, on the same items, parents were consistent 100 percent of the time.

When parent reports and student reports on the same item are compared, in the case of both questions parents and students largely contradict each other. When parent reports on 3-2E were compared to reports on the parallel student item (9E), the 21 students who answered yes to the question were contradicted by parents 90 percent of the time; the eight parents who answered yes were contradicted by their children in three cases out of every four. For the second version of the orthopedic question (3-12C, 48C), students who said yes were contradicted by their parents 100 percent of the time. Again, most parent and student reports of orthopedic services are negative, whichever version of the question is asked--these normally agree. But positive reports, compared on a student-to-self or parent-to-student basis, evidence enormous inconsistency, regardless of which version of the question is involved.

3.2.4.4 Learning Disability: 9F versus 48D (Student Self-Consistency)

Again, though otherwise content is the same, question 9 has broader temporal reference than question 48. Therefore three consistent combinations are licensed:

48	9
Yes......	Yes
No.....	Yes/No

and one combination is contradictory (one cannot answer yes to 48 and no to 9). Question 9F reads "Do you or have you received special services for...(f) Specific learning disability (for example, imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations.)" Question 48D reads "Are you enrolled in any of the following....(c) Special Education services for students with learning problems."

Question 9F also appears in the parent questionnaire (Part 3, 2F) in form identical to its appearance in the student. Question 48D appears in the parent questionnaire (Part 3, 12D) with a slight variation in wording "Special education services for slow learners" instead of ("Special Education services for students with learning problems.")

The relationship between the parent and student question responses may be depicted as follows, where arrows denote a relationship of necessary equivalence for purposes of a consistency analysis--as in the entailment that everyone who answers yes to the more specific 48D must, on pain of contradiction, answer yes to the more general 9F; and the relationship between, for example, 9F and 3-2F where identical questions are asked about the student and only the respondent (eighth grader or parent) differs. (Note that since question wording is not identical it is debatable whether 48D and 3-12D are identical--we provisionally assume their equivalence below.)

STUDENT ITEM PARENT ITEM

$$\begin{tikzcd}
\text{48D} \arrow[r, leftrightarrow] \arrow[d] & \text{3-12D} \arrow[d] \\
\text{9F} \arrow[r, leftrightarrow] & \text{3-2F}
\end{tikzcd}$$

Four possible relationships are necessarily inconsistent if responses to both terms do not agree. A student contradicts herself if she answers yes to 48D but not to 9F; a parent contradicts herself if she answers yes to 3-12D but not to 3-2F. Students and parents contradict each other when they respond differently to 48D (student question) and 3-12D (parent question) or to 9F and 3-2F.

Please refer to Table 3-11 below for the analysis of Q9F and Q48D. Some 1128 students answered no to both questions and 18 answered yes to both yielding a 92 percent consistency in inter-item checks (when both questions were answered). Some 130 respondents left one or both of these questions blank.

Some 54 respondents indicated that they were not enrolled in special education services for students with learning problems now, but they answered yes to Question 9F when asked, "Do you or have you received special services for ....specific learning disability"? This combination of answers is logically possible. However, parent comparisons suggest the degree to which this logical possibility may or may not correspond to empirical truth. Parent data were obtained for 27 of these students and 16 (59 percent) indicated that their child had never received special services for specific learning problems and the remaining 11 (41 percent) indicated that their child had received special services. If we assume that the parent is a better reporter of this information (we can see, at least, that the parent is a more consistent reporter of these data) this comparison implies that the level of inaccuracy for the student data is in the 50 percent range even when it is not logically inconsistent.

Other students were logically inconsistent in their responses. Some 46 students were inconsistent with their answers when they indicated they were now enrolled in a special program for special education services for students with learning problems (answered yes to Question 48D), but answered no to the broader question "have you received special services for a specific learning disability" (answered no to Question 9F). In Question 9F examples of a learning disability are given, while in Question 48D the question refers to "services for students with learning problems". Parent data were available for 14 of these students and 79 percent of the parents said that their child had not received these special services, substantiating the inconsistency in students answers.

TABLE 3-11

CONSISTENCY CHECK BETWEEN Q48D AND Q9F

Q48D	YES	NO	TOTAL
Q9F			
YES	18	54	72
NO	46	1128	1174
TOTAL	64	1182	1246

We contacted a random subsample of ten of the pairs of disagreeing students and parents. Where parent reports diverged from student, we found that students had put an incorrect interpretation on the question--that they meant by receipt of special services for learning disability that they had, for example, been screened for dyslexia, or had repeated math, or had taken extra coursework in summer school. As in the case of orthopedic services, parents seemed better able to correctly interpret the question.

3.2.4.5 Learning Disability: 3-2F versus 3-12D (Parent Consistency)

An inter-item consistency check was performed on the two parent questions (Q3.2F and Q12D). Some 647 parents indicated their child was not enrolled in a special service now for a slow learner problem nor had they ever been. Ten parents answered yes to both questions.

Some 53 parents indicated that their child was not enrolled in a service now, but had received the special service at some time. The other six parents were inconsistent in answering yes to the specific question of their child being enrolled in a class now, but no to the general question. Thus inconsistency occurred in 6 out of 716 cases (less than one percent of the time). As a percentage of the affirmative responses, however, inconsistency occurred 37.5 percent (6/16) of the time. See Table 3-12 below.

TABLE 3-12

CONSISTENCY CHECK BETWEEN Q12D AND Q3.2F

Q12D	YES	NO	TOTAL
Q3.2F			
YES	10	53	63
NO	6	647	653
TOTAL	16	700	716

3.2.4.6 Learning Disability: 3-2F versus 9F; 3-12D versus 48D (Parent-Student Consistency)

A comparison of the student's answer to Question 9F and the parent's answer to Question 3.2F (Parent Questionnaire) could be made in 678 cases where both student and parent data were collected. Agreement between parents and students occurred 90 percent of the time. (Both student and parent answered yes or both parent and student answered no). Some 59 parents said that their child had received services for a specific learning problem but only 15 students (25 percent) admitted receiving these services. Some 617 parents answered no to the question and 594 (96 percent) of the students agreed with them. Please see Table 3-13A.

TABLE 3-13A

CONSISTENCY CHECK BETWEEN Q3.2F AND Q9F

Q3.2F(Parents)	YES	NO	TOTAL
Q9F(Students)			
YES	15	23	38
NO	44	594	638
TOTAL	59	617	678

A comparison of the student answers to Q48D and parent answers to Q12D could be made in 667 cases where both student and parent data were collected. Agreement between student and parent occurred 96 percent of the time (both student and parent answered yes or both student and parent answered no). Sixteen parents said yes their child was enrolled in a special service for slow learning, but students agreed with them only 50 percent of the time. Some 651 parents said that their child was not enrolled in this special service and their children agreed with them 97 percent of the time. See Table 3-13B.

TABLE 3-13B

CONSISTENCY CHECK BETWEEN Q12D AND Q48D

Q12D(Parents)	YES	NO	TOTAL
Q48D(Students)			
YES	8	20	28
NO	8	631	639
TOTAL	16	651	667

In sum, on the special education services for students with learning problems items, findings parallel closely those for the orthopedic services items. Overall inconsistency was low. However, results were overwhelmingly inconsistent for students who answered "yes" at least once--all 64 students who answered yes to 48D should also have answered yes to 9F but only 18 did so. Seventy-two percent (46) of them contradicted themselves in answering 9F.

Parents were somewhat more consistent. The sixteen who answered yes to 3-12D should also have answered yes to 3-2F--ten did so, while six (37.5 percent) did not, thus contradicting themselves. (However, the variant wording for 3-12D renders this contradiction less certain.) As in the orthopedic services question, parents were the more consistent reporters.

When student and parent reports are compared (9F with 3-2F, 48D with 3-12D), there is considerable contradiction. Of 38 students who answered yes to the item, parents contradicted them in 23 cases (60.5 percent of the time) and agreed with them 15 times (39.5 percent of the time). Of 59 parents who said yes, students contradicted them 44 times (74.5 percent of the time) and agreed with them only about 25 percent of the time. For the other pair of special education services for learning problems items (12D/48D), student-parent reports are also contradictory. Of the sixteen parents who said yes, the child received such services, the child agreed only half the cases (8). Of the 28 students who reported receiving such services, parents agreed with them 8 times (28.5 percent) and contradicted them 20 times (71.5 percent). Once more, overall consistency (based on the predominantly negative response) was high. But in the matter of affirmative responses, students were extremely inconsistent and parents were somewhat inconsistent. For both items, there was poor agreement between student and parent responses.

3.2.4.7 Inter-item Consistency: Conclusions and Recommendations

It seems fair to conclude from the analysis of the special education and orthopedic services items that parent response is generally more consistent that student response, and that student reports appear to be quite unreliable. In terms of identifying a "better respondent" for these questions, these questions might better be addressed to parents than to eighth graders. School records might give supplemental accountings of program participation, although accuracy and accessibility problems limit their effective use.

In addition, it would seem that this question series could be put with greater clarity. For example, it might be asked whether it is desirable to collect information for both past and present receipt of these services. If not, then reference to past participation should be dropped. If so, then instead of the present item 9, which asks "Do you or have you received special services for any or all of the following conditions," past and present should be split into subquestions to be answered in separate columns.

Question 9 gives examples of orthopedic impairments and learning disabilities. Question 48 does not. The crosstabulations of student and parent responses show that both forms of each question elicited a similarly high proportion of inconsistencies. Nevertheless, common sense and accepted instrument development practice suggest that the question with the examples should prove clearer and more effective. It might prove clearer still, especially to students, if it included an example of what not to include--namely, temporary impairments such as a broken leg or arm.

3.2.5 Logical Consistency of Responses to Filter and Dependent Questions

A major empirical question of the field test was whether or not eighth grade students would be able to handle skip patterns in the survey instruments successfully. A skip pattern typically is composed of a filter question with routing instructions attached to answer categories, a dependent question or set of dependent questions that immediately follow the filter question, and a non-dependent question after the dependent questions. The routing instructions attached to the answer categories of the filter question tell the respondent whether he or she should answer the dependent question(s) or skip the dependent question(s) and answer the first non-dependent question.

Skip patterns of this type are valuable because they facilitate the collection of data from targeted sub-populations, reducing respondent burden for respondents outside the targeted sub-population and increasing the quality of data collected by screening the respondents to particular questions. Both researchers and respondents have an interest in the successful utilization of skip patterns; researchers obtain data of higher quality while respondents are spared the frustration of having to answer questions irrelevant to their own personal circumstances.

But skip patterns introduce potential difficulties for the respondent in moving through the document. Respondents may incorrectly follow the skip pattern, in one of two general ways. Respondents may skip a dependent question which they should have answered. These errors of omission have serious and negative effects on data quality. Respondents may also answer a dependent question that they should have skipped. Though the effect on data quality is less pronounced because a decision rule may be developed for coding the data, the effect on respondent burden is high. Moreover, if respondents answer dependent questions thatthey should have skipped, the chance of those respondents' completing the survey instruments in the time allotted declines. Thus, the potential is present for data quality of items at the end of the questionnaire to be adversely affected.

In addition to these difficulties, skip patterns may increase the incidence of nonresponse in non-dependent questions. Respondents may inadvertently skip the first one or two non-dependent questions after the dependent questions, thus unnecessarily lowering the response rates for those items. Respondents may also develop a habit of skipping questions because of the inclusion of skip patterns; questions which have comparatively long context-establishing introductions may be skipped by a respondent sensitized to the legitimacy of skipping questions.

Clearly, the potential benefits of utilizing skip patterns--the possibility of targeting particular questions, the opportunity to lower respondent burden -- must be balanced by an assessment of the risks involved. Attempts to base an assessment upon the experience of HS&B are difficult. The HS&B base year student questionnaires had a minimum of skip patterns. The Sophomore instrument did not have any skips, and the Senior Questionnaire had only two simple skips. Still, many of the issues under study in NELS:88 are targeted to specific populations and under these conditions efficiency considerations make the use of skip formats highly desirable. The field test provides an opportunity to appraise student performance on the skip patterns, and to assess the impact of this performance on data quality and respondent burden.

There were sixteen skips within the student survey instruments. The skip patterns may be divided into three distinct groups--first-order, second-order, and third-order--based on the visual formatting of the skip pattern and the distance between the filter question and the first non-dependent question.

Within the student instruments were ten first-order skip patterns. First-order skips involve a possible skip of one or more questions. Students are instructed to skip over at least one complete question, depending upon the student's response to the filter question. In addition, there were four second-order skip patterns. Second-order skips involve a multi-part question in which one or more data elements may be skipped. Filter questions for second-order skip patterns instructed students that responded in a particular manner to skip over the remainder of the question. Lastly, there were three third-order

skip patterns. Third-order skip patterns technically are not skips at all, because they do not have a filter question per se. Still, they can usefully be assimilated to this model because they may help to sensitize the respondent to the presence of skip instructions in the questionnaire. Third-order filter questions provide an either/or option for students, and are only used in the locator items. The typology is outlined below, in Table 3-14:

TABLE 3-14

Skip Pattern Typology

	First Order	Second Order	Third Order
Defining Characteristics	Skip at least one question	Skip part of one question	Either/or option
Potential for Positive and Negative Effect on Data Quality	High	Low	Low
Potential for Positive and Negative Effect on Burden	High	Medium	Low
Incidence of Skips in Locator Booklet	Six	Three	Three
Incidence of Skips in Main Questionnaire Booklet	Four	One	None

Though a general discussion of second- and third-order skip patterns is provided, most attention is focused on student performance in the first order skip patterns. First order skips are given such attention because student failure to properly interpret and respond to instructions for these items will have the largest potential impact on data quality and impose the greatest amount of unnecessary respondent burden. Moreover, in iterative pre-tests of the instruments students experienced the most difficulty with first order skip patterns. Thus, each of the first order skip patterns will be discussed below in some detail, with reference to the first dependent question after the filter question. In addition, the level of nonresponse for non-dependent questions following first order skips is also examined where appropriate, to fully assess the impact of skip formats on student questionnaire performance. Lastly, it was also important to obtain general measures of student performance on the skip patterns in order to investigate whether many students were making at most one skip pattern error, or, rather, that most of the skip pattern errors were committed by students committing more than one error. This approach facilitates exploration of the distribution of skip pattern error. These general measures and the results of the investigation are also discussed.

3.2.5.1 General Discussion of Second- and Third-Order Skip Patterns

In general, students encountered very little difficulty in handling second- and third-order skip patterns. The overwhelming majority of skip pattern failures had no impact on data quality. For example, in Locator Questions 3 and 5 several students placed a checkmark in the box labeled "Same as Mine", therefore indicating that the female guardian or male guardian had the same address as the student. Some of the students who checked the box went on to record the address again. Thus, their failure to correctly follow the skip instructions increased respondent burden for those particular students. But data quality, at least for those particular questions, was not compromised.

The main purpose of the second- and third-order skip patterns was to reduce respondent burden. In some of the first-order skip patterns response inconsistencies between the filter and dependent questions adversely affects data quality. But with the second- and third-order skip patterns the primary goal is not data clarification; instead, the primary goal is respondent burden reduction. To increase the effectiveness of the second- and third-order skip patterns in meeting this goal, the use of routing arrows and perhaps shaded text areas is suggested for the base year version of the questionnaire.

3.2.5.2 First-Order Skip Patterns

Below, Table 3-15 lists all first order filter questions, the two paths available to students, and the function of the skip pattern:

TABLE 3-15

FIRST ORDER SKIP PATTERNS

Locator Booklet

NUMBER	FILTER	PATH X	PATH Y	USE OF SKIP PATTERN
1	Q2	Question 3/ Question 4	Question 4	To allow students without a living female guardian to skip out of question 3, which asks for the female guardian's address.
2	Q4	Question 5/ Question 6	Question 6	To allow students without a living male guardian to skip out of question 5, which asks for the male guardian's address.
3	Q14	Rest of Q14/ Question 15/ Question 16	Question 16	To allow students without a second possible high school to attend to skip out of questions pertaining to a second possible high school.
4	Q16	Question 17/ Question 18/ Question 19	Question 19	To allow students who did not speak a language other than English prior to starting school to skip out of questions pertaining to early language acquisition.
5	Q20	Question 21/ to beginning of Main Quex Booklet	Beginning of Main Quex Booklet	To allow students who do not have a language other than English spoken in their home to skip out of the minority language supplement items.
6	Q28	Question 29	Beginning of Main Quex Booklet	To allow students never enrolled in a language assistance program to skip out of a question concerning when they were enrolled in such a program.

Main Questionnaire Booklet

ORDER	FILTER	PATH X	PATH Y	USE OF SKIP PATTERN
7	Q4	Question 5/ Question 6/ Question 7	Question 7	To allow students born in the U.S. (except for Puerto Rico) to skip over questions concerning the arrival and early school experience of immigrants to the U.S.
8	Q7	Question 8/ Question 9	Question 9	To allow students who have not completed any grades in schools outside of the U.S. to skip over questions pertaining to grades completed outside of the U.S.
9	Q31	Question 32/ Question 33	Question 33	To allow students who have not received information concerning vocational education this year to skip out of questions pertaining to the source of the information.
10	Q35	Question 36/ Question 37/ Question 38	Question 38	To allow students with no paid work experience to skip out of questions pertaining to paid work experience.

Each first order skip pattern is discussed in turn. For each situation, -1 indicates missing data, unless otherwise specified.

First order skip pattern number 1:

Analysis

This skip format allowed students without a living female guardian to skip out of the question that asks for the address of the female guardian. Only eight students checked the box, and all of them followed the routing instructions appropriately. Only one student who did not check the box (and did not check the second-order skip pattern "Same as Mine") did not answer the dependent question. Skip pattern error is 0 percent. Thus, it seems that this skip pattern is working well.

Recommendation: Retain this item but add routing arrows.

First order skip pattern number 2:

Analysis

This skip pattern allowed students without a living male guardian to skip out of the question that asks for the address of the male guardian. Eighty-four students checked the box; of these eighty-four, seventy followed the routing instructions properly. Fourteen students listed an address in

the dependent question for a male guardian. It may be the case that the father of these students has died and the mother has remarried; thus, both responses are conceivably appropriate from the student's point of view. Again, only one student who did not check the box (and did not check the second-order skip pattern "Same as Mine") did not answer the dependent question.

Though it is possible that skip pattern error is as high as 17.5 percent, the possibility that students whose father is deceased but whose mother has remarried would respond in a technically incorrect manner to the routing instructions is sufficiently high as to make ambiguous any judgments of skip pattern performance per se based upon this example. Given that data quality is not compromised nor is an inordinately high respondent burden imposed for students responding to the routing instructions in a technically incorrect but contextually correct manner, it seems safe to conclude that this skip pattern is working well. Indeed, the current structure of the skip pattern may carry with it psychic rewards for students finding themselves in such households, for they are able to acknowledge the deceased father and the present male guardian in a manner that does not impose a severe and insensitive rank order.

Recommendation: Retain this item but add routing arrows.

First order skip pattern number 3:

TABLE 3-16

LOCATOR Q15: OTHER H.S.--PUBLIC/PRIVATE/NON-RELIGIOUS
VS. LOCATOR Q14: IS THERE ANOTHER H.S. R MAY ATTEND?

	Count Row Pct Col Pct	Locator Q14 BLANK	 NO	 YES	Row Total
Locator Q15					
BLANK	-1	35	848	5	888
		3.9	95.5	.6	64.5
		53.8	96.3	1.2	
PUBLIC	1	19	14	295	328
		5.8	4.3	89.9	23.8
		29.2	1.6	68.6	
RELIGIOUS	2	3	6	82	91
		3.3	6.6	90.1	6.6
		4.6	.7	19.1	
NONRELIGIOUS	3	2	4	20	26
		7.7	15.4	76.9	1.9
		3.1	.5	4.7	
DK	8	6	9	28	43
		14.0	20.9	65.1	3.1
		9.2	1.0	6.5	
	Column Total	65 4.7	881 64.0	430 31.3	1376 100.0

Analysis

Students answering "NO" to the filter question were instructed to skip Locator Question 15. There were 881 "NO" responses to the filter question, and of these, 96.3 percent or 848 skipped Locator Question 15. Of the 430 students that responded affirmatively to the filter question, only 1.2 percent incorrectly skipped the dependent question. In addition, the level of nonresponse for the first non-dependent question after the skip pattern was well below the threshold established for nonresponse. Although data loss from this skip is quite low (<2 percent), it might be further reduced by improved formatting and use of routing arrows.

Recommendation: Add routing arrows.

First order skip pattern number 4:

TABLE 3-17

CROSSTABULATION OF L17: FIRST LANGUAGE SPOKEN AS A CHILD VS. L16: BEFORE SCH DID R SPEAK ANY OTHER LANGUAGE?

L16->	Count Row Pct Col Pct	BLANK -1	YES 1	NO 2	Row Total
L17					
	-1	33	13	780	826
		4.0	1.6	94.4	60.0
		76.7	4.1	76.8	
	1	6	51	233	290
ENGLISH		2.1	17.6	80.3	21.1
		14.0	16.1	22.9	
	2	1	139		140
SPANISH		.7	99.3		10.2
		2.3	43.8		
ITALIAN	3	1	23	1	25
FRENCH &		4.0	92.0	4.0	1.8
GERMAN		2.3	7.3	.1	
CHINESE &	4	1	44	1	46
THE 4 API		2.2	95.7	2.2	3.3
LANGUAGES		2.3	13.9	.1	
	9		1		1
PORTUGUESE			100.0		.1
			.3		
	11	1	46	1	48
OTHER		2.1	95.8	2.1	3.5
		2.3	14.5	.1	
	Column	43	317	1016	1376
	Total	3.1	23.0	73.8	100.0

Analysis

This is the first of the skip patterns on the language minority items. This filter is not as successful in all regards as the preceding one. Only 76.8 percent of the students who, because of their negative response to the filter question should have skipped Locator question 17, actually skipped LQ17. Student difficulty with this item is probably related to the time frame imposed; students are asked whether or not they spoke a language other than English prior to entering school. Many students may be confused by the question. The major impact of this problem is on respondent burden.

In terms of data quality the skip pattern performs optimally. Only 1.6 percent of the students who did skip should not have done so, and this translates into 4.1 percent of the students who should have answered the dependent question owing to their response in the filter question. Thus, this item also is performing adequately.

Recommendation: Retain this skip pattern, but format with a routing arrow.

First order skip pattern number 5:

TABLE 3-18

CROSSTABULATION OF L21: WHAT LANGUAGE IS SPOKEN IN YOUR HOME?
VS. L20: LANG OTHER THAN ENGLISH SPOKEN IN HOME

L20->	Count Row Pct Col Pct	BLANK -1	YES 1	NO 2	Row Total
L21					
	-1	5	25	758	788
		.6	3.2	96.2	57.3
		71.4	5.8	81.0	
	1	1	102	176	279
ENGLISH		.4	36.6	63.1	20.3
		14.3	23.6	18.8	
	2		168	1	169
SPANISH			99.4	.6	12.3
			38.8	.1	
ITALIAN,	3		35		35
FRENCH &			100.0		2.5
GERMAN			8.1		

TABLE 3-18 (CON'T)

CROSSTABULATION OF L21: WHAT LANGUAGE IS SPOKEN IN YOUR HOME? VS. L20: LANG OTHER THAN ENGLISH SPOKEN IN HOME

```
              Count |
   L20->    Row Pct | BLANK  |    YES |     NO | Row
            Col Pct |     -1 |      1 |      2 | Total
L21         --------+--------+--------+--------+
  CHINESE &       4 |      1 |    54  |        |    55
  THE 4 API         |    1.8 |  98.2  |        |   4.0
  LANGUAGES         |   14.3 |  12.5  |        |
                    +--------+--------+--------+
                  9 |        |     1  |        |     1
  PORTUGUESE        |        | 100.0  |        |    .1
                    |        |    .2  |        |
                    +--------+--------+--------+
                 11 |        |    48  |      1 |    49
  OTHER             |        |  98.0  |    2.0 |   3.6
                    |        |  11.1  |     .1 |
                    +--------+--------+--------+
             Column        7      433      936    1376
              Total       .5     31.5     68.0   100.0
```

Analysis

Student responses to this filter question determine whether or not students should answer the language minority items. Thus, failure to successfully handle this skip can add a great deal of time to that necessary for completion of the survey instruments, not to mention creating frustration for students as they wrestle with questions that do not seem to pertain to their particular circumstances.

Given the importance of this filter question, it is distressing to observe that only 81 percent of the students who should have skipped the first minority language item actually did so. Eighteen and eight tenths percent of the students who should have skipped Locator Question 21 answered "English" to Locator Question 21, the first dependent question. Responses to Locator Question 22 of students answering "English" to Locator Question 21 were examined. Locator Question 22 asked students what other language is spoken in their home. Taken together, these first two dependent questions provide a check on the filter item. No student should have entered the minority language items and been able to respond "English" to the first dependent question and "No Other Language" to the second dependent question. This response pattern is indicative of a routing failure:

TABLE 3-19

CROSSTABULATION OF L22: WHAT OTHER LANG SPOKEN IN YOUR HOME? VS. L20: LANG OTHER THAN ENGLISH SPOKEN IN HOME

(For all students answering "No" to Locator Question 20 and "English" to Locator Question 21.)

```
            Count  |NO       |
   L20->  Row Pct  |         |  Row
          Col Pct  |        2|  Total
L22       ---------+---------+
               -1  |    55   |    55
                   |  100.0  |  31.3
                   |   31.3  |
                   +---------+
                0  |   101   |   101
  NO OTHER LANGUAG |  100.0  |  57.4
                   |   57.4  |
                   +---------+
                1  |    17   |    17
  ENGLISH          |  100.0  |   9.7
                   |    9.7  |
                   +---------+
                2  |     2   |     2
  SPANISH          |  100.0  |   1.1
                   |    1.1  |
                   +---------+
  ITALIAN,      3  |     1   |     1
  FRENCH &         |  100.0  |    .6
  GERMAN           |     .6  |
                   +---------+
           Column      176       176
            Total    100.0     100.0
```

In all, of the 176 students answering "English" to Locator Question 21, it seems that 118 students answered Locator Question 22 in a manner that casts doubt on the propriety of their answering the language items, while another 55 students skipped the second dependent question. The value of the "No Other Language" category is made manifest as a tool for clarifying the data after skip pattern failures.

Recommendation:

Use routing arrows to further clarify the skip patterns, use different colored pages to mark the language items. Consideration also might be given to separating the language filter and dependent questions to enable survey personnel to designate appropriate respondents.

First order skip pattern number 6:

Analysis

In this crosstabulation, 0.00 indicates missing for the dependent question, Locator Question 29. Locator Question 29 asks for the grade the student was enrolled in a language assistance program. If a student answered "YES" to the filter question, "Were you ever enrolled in an English language/language assistance program, that is, a program for students whose native language is not English?", then the student was instructed to answer Locator Question 29:

TABLE 3-20

CROSSTABULATION OF LOCATOR QUESTION 29
VS. L28: WAS R EVER ENROLLED IN LANG ASSISTANCE PROGRAM?

```
                 Count   |YES      |NO       |MISSING  |
   L28->         Row Pct |         |         |         |  Row
                 Col Pct |       1 |       2 |       9 | Total
LQ 29            --------+---------+---------+---------+
                   0.0   |     4   |   399   |     1   |   404
                         |   1.0   |  98.8   |    .2   |  81.0
                         |   5.1   |  95.2   | 100.0   |
                         +---------+---------+---------+
                  1.00   |    75   |    20   |         |    95
                         |  78.9   |  21.1   |         |  19.0
                         |  94.9   |   4.8   |         |
                         +---------+---------+---------+
                Column        79       419         1       499
                 Total      15.8      84.0        .2     100.0
```

Analysis

A total of 98.8 percent of those that responded "NO" to Locator Question 28 skipped Locator Question 29 as instructed, and only 1 percent of the students that should have answered Locator Question 29 illegitimately skipped the question. The positioning of this filter at the conclusion of the Locator Booklet, and the clear path from the filter to the dependent question on the same page facilitated student attempts to follow the skip instruction.

Recommendation:

Retain this skip pattern, but add routing arrows.

First order skip pattern number 7:

TABLE 3-21

CROSSTABULATION OF Q5: AGE FIRST ARRIVED IN U.S./D.C. VS. Q4: WERE YOU BORN U.S./PUERTO RICO/ANOTHER COUNTRY?

Q5 \ Q4-> (Count / Row Pct / Col Pct)	BLANK -1	USA 1	ABROAD 2	Row Total
-1	28 2.4 77.8	1126 97.1 95.9	6 .5 3.6	1160 84.3
1 YEAR OLD OR LESS	1 1.5 2.8	42 62.7 3.6	24 35.8 14.5	67 4.9
OLDER THAN 1 YR YOUNGER THAN 5	5 7.7 13.9	1 1.5 .1	59 90.8 35.5	65 4.7
OLDER THAN 5 YOUNGER THAN 10	2 3.4 5.6	4 6.8 .3	53 89.8 31.9	59 4.3
OLDER THAN 10 YOUNGER THAN 16		1 4.0 .1	24 96.0 14.5	25 1.8
Column Total	36 2.6	1174 85.3	166 12.1	1376 100.0

Analysis

This is the first of the skip patterns in the Main Questionnaire Booklet. Students born in the United States (not including Puerto Rico) were instructed to skip Question 5. A total of 95.9 percent of them did so. Also, less than 1 percent of the students who should not have skipped actually incorrectly skipped Question 5. In addition, the nonresponse rate for the first nondependent question after this skip pattern--the nonresponse rate for question 7--is 2.7 percent below the eight percent margin established for noncritical items. Thus, all indicators point to a positive interpretation of student performance on this skip pattern.

Recommendation:

Retain this skip pattern, but add routing arrows.

First order skip pattern number 8:

Analysis

Question 7 is a filter question, with instructions for students responding affirmatively to continue on to Question 8. For Question 8, zero indicates that the student skipped the question:

TABLE 3-22

CROSSTABULATION OF Q8
VS. Q7: COMPLETED ANY GRADES OUTSIDE U.S./D.C.

```
              Count  |YES      |NO       |
       Q7->  Row Pct |         |         |  Row
             Col Pct |       1 |       2 | Total
Q8           --------+---------+---------+
               0.0   |    13   |  1188   |  1201
                     |   1.1   |  98.9   |  92.1
                     |  12.1   |  99.2   |
                     +---------+---------+
               1.00  |    94   |     9   |   103
                     |  91.3   |   8.7   |   7.9
                     |  87.9   |    .8   |
                     +---------+---------+
              Column     107      1197      1304
               Total     8.2      91.8     100.0
```

Analysis

Over 99 percent of the students who should have skipped Question 8 did so; in terms of respondent burden this question is performing at the highest level. But 12.1 percent of the students who answered "YES" to Question 7 failed to respond to Question 8, and this is an unacceptable level of data loss. One reason for the poor performance of students in moving from the filter to the dependent question in this skip pattern is that the two items do not fall on the same page. Though they are located on facing pages, it seems that this separation is sufficient to create a large and unacceptable loss of data.

Recommendation:

Place the filter and dependent questions on the same page and use arrows to facilitate proper routing of the respondent.

First order skip pattern number 9:

TABLE 3-23

CROSSTABULATION OF Q32
VS. Q31: HAS R RECEIVED INFO ON VOCATIONAL ED?

```
            Count  |YES     |NO      |
   Q31->   Row Pct |        |        | Row
           Col Pct |       1|       2| Total
Q32        --------+--------+--------+
             0.0   |   14   |  982   |  996
                   |  1.4   | 98.6   | 74.7
                   |  4.2   | 98.3   |
                   +--------+--------+
             1.00  |  320   |   17   |  337
                   | 95.0   |  5.0   | 25.3
                   | 95.8   |  1.7   |
                   +--------+--------+
           Column     334      999     1333
            Total    25.1     74.9    100.0
```

Analysis

For Question 32, zero indicates that the student skipped the question. Ninety-eight and three tenths percent of the students instructed to skip Question 32 did so, while only 4.2 percent of the students who should not have skipped did so. The level of missing data for the first non-dependent question after the skip pattern is low, only 3.6 percent, indicating that the skip pattern did not appreciably effect the movement of students through this juncture of the document.

Recommendation:

Retain this item but add routing arrows.

First order skip pattern number 10:

TABLE 3-24

CROSSTABULATION OF Q36: WHAT KIND OF WORK R DID ON RECENT JOB
VS. Q35: HOW MANY HOURS DO YOU WORK ON YOUR JOB?

```
            Count  |
   Q35->   Row Pct | BLANK  | NVR WRK| WORKED | Row
           Col Pct |      -1|       0|       1| Total
Q36        --------+--------+--------+--------+
              -1   |   49   |  498   |   71   |  618
                   |  7.9   | 80.6   | 11.5   | 44.9
                   | 86.0   | 86.3   |  9.6   |
                   +--------+--------+--------+
               0   |    5   |   45   |   19   |   69
  DID NOT WORK     |  7.2   | 65.2   | 27.5   |  5.0
  FOR PAY          |  8.8   |  7.8   |  2.6   |
                   +--------+--------+--------+
```

TABLE 3-24 (CON'T)

CROSSTABULATION OF Q36: WHAT KIND OF WORK R DID ON RECENT JOB
VS. Q35: HOW MANY HOURS DO YOU WORK ON YOUR JOB?

```
               Count  |
   Q35->     Row Pct  | BLANK   | NVR WRK| WORKED  |  Row
             Col Pct  |      -1 |      0 |       1 | Total
Q36           --------+---------+--------+---------+
                    1 |       3 |     34 |   652   |  689
   HAS WORKED         |      .4 |    4.9 |  94.6   |  50.1
   FOR PAY            |     5.3 |    5.9 |  87.9   |
                      +---------+--------+---------+
               Column        57      577      742     1376
                Total       4.1     41.9     53.9    100.0
```

Analysis

Students did not handle this skip pattern with the facility exhibited on other skip patterns. Eighty-six and three tenths percent of the students instructed to skip Question 36 did so; 9.6 percent of the students instructed to answer Question 36 did not. This level of data impurity is not acceptable. The high level of student difficulty can be traced to the inclusion in the first dependent question of a category to accommodate students who failed to successfully handle the skip pattern. The inclusion of this option may have confused students.

Recommendation:

Either remove the skip instructions, or remove the category for students that fail the skip instruction.

3.2.5.3 Analysis of Skip Pattern Indices

In order to further investigate student performance on all the major first order skip patterns, two scales were developed. One scale, FOSSCAL1, measures student performance on the skips with no regard for the effect of that performance on data quality. This is the more sensitive of the indices, and reflects the important consideration of respondent burden. The second scale, FOSSCAL2, measures skip pattern errors that adversely affect data quality. Each scale varies between zero and one, with zero indicating optimal skip pattern performance, and one indicative of a student that missed every first order skip pattern to which he or she was exposed. Each scale is based on student performance in eight of the ten skip patterns. The first and second skips were not included in the scale because of the ambiguity surrounding possible student skip pattern errors, discussed above in the treatment of skip pattern two. The frequencies of the two scales are provided below, in Table 3-25:

TABLE 3-25

FOSSCAL1

Value	Frequency	Percent	Valid Percent	Cum Percent
0.00	883	64.2	64.7	64.7
.13	93	6.8	6.8	71.5
.14	177	12.9	13.0	84.5
.17	38	2.8	2.8	87.3
.20	6	.4	.4	87.7
.25	47	3.4	3.4	91.1
.29	61	4.4	4.5	95.6
.33	9	.7	.7	96.3
.38	16	1.2	1.2	97.4
.40	5	.4	.4	97.8
.43	13	.9	1.0	98.8
.50	4	.3	.3	99.0
.57	3	.2	.2	99.3
.60	1	.1	.1	99.3
.63	1	.1	.1	99.4
.67	1	.1	.1	99.5
.71	1	.1	.1	99.6
.75	2	.1	.1	99.7
.80	1	.1	.1	99.8
.86	1	.1	.1	99.9
1.00	2	.1	.1	100.0
.	11	.8	MISSING	
TOTAL	1376	100.0	100.0	

Valid Cases 1365 **Missing Cases** 11 **Mean** .08

FOSSCAL2

Value	Frequency	Percent	Valid Percent	Cum Percent
0.00	1224	89.0	89.7	89.7
.13	48	3.5	3.5	93.2
.14	65	4.7	4.8	97.9
.17	12	.9	.9	98.8
.20	3	.2	.2	99.0
.25	6	.4	.4	99.5
.29	4	.3	.3	99.8
.33	1	.1	.1	99.9
.40	1	.1	.1	99.9
.50	1	.1	.1	100.0
.	11	.8	MISSING	
TOTAL	1376	100.0	100.0	

Valid Cases 1365 **Missing Cases** 11 **Mean** .02

Perusal of the frequency distribution of FOSSCAL2 reveals that 89.7 percent of the students made no errors resulting in a reduction of data quality with any of the first order skip patterns. The first, more sensitive scale, indicates that 64.7 percent of the students had no problem with any of the skip patterns.

Scores for both frequency distributions are concentrated in the lower reaches of the scale, suggesting that most individual students did not make very many skip pattern errors. Instead, many students made one or two errors. Thus, the individual skips themselves can be altered to enhance student performance; the concept of skipping questions as instructed is not so unfamiliar to students that they cannot follow these instructions.

To investigate the skip pattern performance of different types of students, scores on each of the skip pattern scales were recoded into two groups, scores indicative of no errors for a particular student (0), and scores indicative of one or more skip pattern errors by the student (>0). The recoded skip pattern scales were crosstabulated with an SES scale and grades by self-report. The SES scale—a composite variable based on student report of parental occupation and education--has been recoded to take on the values one, for low SES, two, for middle SES, and three, for high SES. Results of the SES crosstabulation, immediately below, strongly suggest that skip pattern error occurs in each of the three socioeconomic classes to roughly the same degree. Thus, it seems that the skip patterns do not present a greater problem for low-, middle-, or high-socioeconomic status groups.

TABLE 3-26

CROSSTABULATION OF FOSSCAL1 VS. SES1

```
              Count   |
   SES1->     Row Pct |                              |  Row
              Col Pct |    1.00|    2.00|    3.00|  Total
FOSSCAL1      --------+--------+--------+--------+
                0.0   |   347  |   360  |   132  |   839
                      |  41.4  |  42.9  |  15.7  |  65.6
                      |  63.4  |  66.9  |  68.0  |
                      +--------+--------+--------+
               1.00   |   200  |   178  |    62  |   440
                      |  45.5  |  40.5  |  14.1  |  34.4
                      |  36.6  |  33.1  |  32.0  |
                      +--------+--------+--------+
              Column     547      538      194     1279
               Total     42.8     42.1     15.2    100.0
```

CROSSTABULATION OF FOSSCAL2 VS. SES1

```
             Count  |
SES1->      Row Pct |                           | Row
            Col Pct |    1.00|    2.00|    3.00| Total
FOSSCAL2    --------+--------+--------+--------+
              0.0   |   491  |   492  |   168  |  1151
                    |  42.7  |  42.7  |  14.6  |  90.0
                    |  89.8  |  91.4  |  86.6  |
                    +--------+--------+--------+
             1.00   |    56  |    46  |    26  |   128
                    |  43.8  |  35.9  |  20.3  |  10.0
                    |  10.2  |   8.6  |  13.4  |
                    +--------+--------+--------+
            Column     547      538      194     1279
             Total     42.8     42.1     15.2    100.0
```

Students with high and low grades were compared. The results of this crosstabulation for each of the scales is immediately below, and suggests that students whose self-reported grades are low make more skip pattern errors in general, but do not make appreciably more errors with negative effects on data quality.

TABLE 3-27

CROSSTABULATION OF FOSSCAL1
VS. Q63: WHAT BEST DESCRIBES R GRADES IN SCHOOL?

```
             Count  |
Q63->       Row Pct |  LOW   |  HIGH  |  Row
            Col Pct |      0 |      1 | Total
FOSSCAL1    --------+--------+--------+
              0.0   |    92  |   202  |   294
                    |  31.3  |  68.7  |  70.2
                    |  56.8  |  78.6  |
                    +--------+--------+
             1.00   |    70  |    55  |   125
                    |  56.0  |  44.0  |  29.8
                    |  43.2  |  21.4  |
                    +--------+--------+
            Column     162      257      419
             Total     38.7     61.3    100.0
```

```
                    CROSSTABULATION OF FOSSCAL2
          VS. Q63:  WHAT BEST DESCRIBES R GRADES IN SCHOOL?

             Count   |
     Q63->   Row Pct |   LOW    |  HIGH    |  Row
             Col Pct |       0  |       1  | Total
FOSSCAL2     --------+----------+----------+
              0.0    |    144   |    237   |   381
                     |   37.8   |   62.2   |  90.9
                     |   88.9   |   92.2   |
                     +----------+----------+
              1.00   |     18   |     20   |    38
                     |   47.4   |   52.6   |   9.1
                     |   11.1   |    7.8   |
                     +----------+----------+
             Column      162        257       419
              Total     38.7       61.3     100.0
```

In addition, a check of completion of the latter questionnaire items by performance on FOSSCAL1 revealed that only one student did not complete the latter questions. This student did not make any skip errors. Therefore, it seems that routing errors did not increase respondent burden so much that completion of the student instruments became problematic, thus negatively affecting data quality for the concluding questions.

3.2.5.4 General Conclusions

The experience of the field test seems to suggest that eighth grade students are able to successfully handle skip patterns. Over sixty-four percent of the students were able to complete the survey instruments without making a single skip pattern error, and 89.7 percent were able to complete the survey instruments without making errors that negatively affected data quality. The rate of success in handling the skip patterns did not correlate with differences in socioeconomic status, nor was there a manifest bias against students with low self-reported grades. There was no correlation between skip pattern error and failure to complete the survey instruments; data quality on the last items in the questionnaire does not suffer because of the incidence of skip pattern error. Similarly, non-dependent questions following dependent questions did not register inordinately high levels of nonresponse.

Still, the lessons of the field test may be employed to improve student performance. The base year questionnaire should retain skip formats where they contribute to the logic and efficiency of the questionnaire and to the goal of minimizing respondent burden. The inclusion of the proposed item and format modifications in the base year instrument will facilitate student adherence to routing instructions. Most skip errors led students into a question series they did not need to answer. For this reason the question(s) following a filter question should always contain a "redundant" response appropriate for those respondents who should have been screened out. Also, consideration should be given to adding an illustration of a skip instruction into the preliminary examples. Inclusion of an example questions renders an analysis of response variation based upon the presence of an answer for these questions ambiguous at best, the final two questions from the Main Questionnaire booklet were not used in the comparison of nonresponse rates. (However, we did check the last item in the questionnaire--66--to see how many students had answered it at least once. All 1376 respondents had at least one response to the multi-element final question.) One caveat that should be entered here is that such a comparison is in one sense unfair--there were no critical items in the latter part of the questionnaire, so that a number of early questions had the benefit of retrieval--a procedure that boosts the response rate-- while the latter items did not.

In addition to comparing items in different sections of the survey instruments, the concluding items are compared with one another in an effort to discover the point in the questionnaire at which response rates begin to decrease significantly.

Columns 1 and 3 in Table 3-28 below list the percentage of blanks for the first fifteen closed-ended nondependent items in the survey instruments and fifteen of the last seventeen items in the survey instruments. Column 2 and Column 4 in Table 3-28 list the nonresponse rates for the two sets of questions.

TABLE 3-28

	Initial Items			Concluding Items	
Question	1 Pct Blank	2 Non Response	Question	3 Pct Blank	4 Non Response
LQ8	1.4	1.5	MQ59	2.4	2.4
LQ10	.2	.3	MQ60A	3.6	3.7
LQ12	1.2	5.4	MQ60B	4.3	4.4
LQ13	.5	32.4	MQ60C	4.0	4.2
LQ14	4.7	4.7	MQ60D	3.9	3.9
LQ16	3.1	3.1	MQ61B	4.1	4.2
LQ20	.2	.5	MQ61C	3.8	3.9
MQ1	2.5	9.1	MQ61D	4.5	4.6
MQ2	.1	1.0	MQ61E	6.0	6.2
MQ3A	3.2	3.3	MQ62	3.1	3.4
MQ3B	6.7	6.9	MQ63	3.6	6.2
MQ3C	9.5	9.7	MQ64A	3.5	4.5
MQ4	.3	2.6	MQ64B	3.4	4.9
MQ7	5.2	5.2	MQ64C	3.4	4.6
MQ9A	3.6	3.8	MQ64D	3.6	5.0
Mean	2.83	5.97	Mean	3.81	4.41
Median	2.5	3.8	Median	3.6	4.4

The mean percent blank for the initial items is 2.83 percent; for the concluding items it is 3.81 percent. Approximately a one percent difference is observed between the two groups. A slightly higher difference is observed between the mean nonresponse rates for the two sets of items, and the direction of the difference seems to cast doubt upon the efficacy of an analysis of response variation by position of the item in the questionnaire. The mean nonresponse rate for items at the beginning of the questionnaire is higher than that for items at the end of the questionnaire. The direction of the difference of the mean nonresponse rates, however, is related to the extremely high nonresponse rate of 32.4 percent recorded for Locator Question 13.

A check of the median for each of the two groups will assist in sorting out what seems to be conflicting evidence. Though the means are of assistance in comparing the two groups, the median is of more value in both comparing the two groups and describing the groups in terms of overall performance relative to an absolute standard. The mean is of less value in this situation because it is sensitive to relatively minor variations in the values at both the high and low extremes. The extreme values observed in the table are more indicative of characteristics of the particular questions involved; the relevance of the extreme values to an analysis of response variation by item position in the documents is overstated by the use of the mean.

The median percentage blank for the initial items is 2.5 percent; the median for the concluding items is 3.6 percent. The difference between the two groups holds at approximately one percent. The difference in the median nonresponse rates is approximately .6 percent, and the lower median is observed for the initial items.

The differences in the mean and median percentage of blanks and the median nonresponse rates for the two groups is small enough to conclude that relative to the initial items in the survey instruments, data quality for the latter items is not appreciably affected by their placement at the conclusion of the survey instruments. It is worth noting that the overall performance of the two groups of questions appears to be slightly better when the median is used than when the mean is used, an indication that, with the exception of a few questions that score on the extreme high-end of the nonresponse scale, students are able to provide responses to the questions.

Apart from comparisons with the initial items of the survey documents, the concluding questions do not seem to register increasing rates of blanks, and the rate of nonresponse increases only marginally. Variance is more related to the content of particular items than to the placement of the item closer to the conclusion of the questionnaire. For example, the comparatively high rate of blanks for Main Questionnaire Question 61E appears to be primarily related to the content of the question. Main Questionnaire Questions 61A through 61D ask students how much time they spend on homework for Mathematics, Science, English, and Social Studies. Main Questionnaire Question 61E asks students how much time they spend on homework for all other subjects; the relatively high rate of blanks may simply register the experience of some students who may not have other courses with homework besides those mentioned previously. As further evidence, Main Questionnaire Question 56E registered a higher percentage of blanks than any of the final fifteen items, with 14.8 percent of the students leaving the question blank.

Given the comparison of items at the beginning and end of the survey instruments, and the aforementioned distribution of blanks in the concluding section of the questionnaire, it seems the questionnaire is neither overly long nor burdensome for students. Still, the possible reduction in the time allotted for completion of the survey in the base year must be considered during the development of the base-year instruments.

3.2.7 Cross-validation: Student Versus Parent Reports

3.2.7.1 Socioeconomic Status

Socioeconomic status has long been recognized as one of the most important predictors of educational outcomes and personal and social development. Because of the centrality of the SES variable to descriptive and analytic studies, it is extremely important that data quality support the construction of a reliable and valid SES measure. Elsewhere in this chapter (3.2.3.1) we analyzed student nonresponse on the parental occupation and education questions. While this analysis made clear that the level of student nonresponse was disturbingly high on these items, it left unanswered the question of the quality of responses actually given. One way to gauge the quality of student SES responses is to compare them to parent responses. Parents in general will presumably know their own educational attainments and occupational statuses--and usually those of their spouse--better than will an eighth grader.

Among the composite variables included in the data files for both NLS-72 and HS&B is an SES Index. Each participant was assigned a code corresponding to one of four quartiles, based on the SES composite score. Five components, standardized then equally weighted, were used to compute the respondent's SES score. These were: father's education, mother's education, parents' income, father's occupation, and household items. A somewhat different scheme was followed in constructing an SES composite for the NELS:88 field test respondents.

For purposes of comparing student and parent SES reports, we constructed an SES Index from a standardized, equally weighted combination of father's education, mother's education, father's occupation, and mother's occupation. Income was omitted because there was no income question on the student questionnaire. "Household items" was omitted because there was no household items question on the parent questionnaire. (However, we have compared SES Index results with student household items reports and parent income reports.)

It seems most useful to compare student composite to parent composite--as contrasted to comparing each SES item separately--for several reasons. Since SES has several aspects each of which is likely to influence future achievement in a particular way, it seems appropriate to represent the most salient of the family background factors--parental occupation and education--in a combined measure. Also, a composite variable can accommodate a certain number of missing values, and still produce a valid classification--whereas the cumulative effects of missing values are not apparent from looking at the data elements separately.

Another motive for dealing with composite SES is that the cumulative effect of errors may have a different effect than those errors considered in isolation. For example, a crosstabulation will tell us when parent occupation or education categories do not match and student responses can be recorded as presumed to be either correct or incorrect. But, because in a composite variable multiple errors may cancel each other and because errors have different weights, composites may often agree even where a comparison of specific data points shows disagreement. In a hierarchically ordered measure, such as education or occupation, correctness is not necessarily categorical but may admit of degrees. A student who describes his surgeon mother as an "operative" rather than a "professional" makes a large error, but a student who puts a parent in the clerical category who in fact belongs in sales makes an error with smaller consequences for the assignment of SES. Finally, the occupational categories themselves cover sufficiently wide ranges as to overlap for SES purposes. Thus a technical classification error--for example, classifying a high-income sales representative who deals with nuclear medicine machines as a manager--may give a truer SES datum than the technically correct classification, sales.

We have therefore based our central comparison on the composite SES variable. However, and in part as a check on this procedure, we first crosstabulated parent and student responses to the four data elements of the composite, father's occupation, mother's occupation, father's education, mother's education. We will report the results of the parental education tabulation summarily, then illustrate the results of the occupation comparison in detail.

Owing to the large amount of missing data, only 393 of the 775 parent cases could be matched to student reports on the father's education (recall that student nonresponse on tne education questions was over thirty percent, while the two items in the parent questionnaire had 12.5 and 16 percent nonresponse respectively). Of those 393 matchable responses, 232 agreed on father's education and 161 (41 percent) disagreed. For mother's education, 420 of the 775 potential pairs could be matched. Some 240 agreed and 180 disagreed (43 percent). These results are not encouraging. While student error could be somewhat mitigated by broadening the educational attainment categories, the high utilization of the Don't Know category suggests that both nonresponse and inaccurate guessing would persist.

In order to somewhat simplify the comparison of parent-student occupational reports, we have combined some occupations that have similar Duncan SEI scores (for example, craftsman and farmer; clerical and sales; owner, protective service; operative, service; professional 1 and professional 2), and have dropped homemaker and military, since these do not measure SES differences. For much the same reason, we also excluded the Not Working response, which is applicable to a variety of situations that have no one consistent meaning for SES.

This recode has the effect of reducing the amount of disagreement between parent and student reports, insofar as some contradictions are nullified when larger categories are drawn. However, this more generous criterion for disagreement is also appropriate, to the degree that categories similar in prestige point toward similar SES. Tables 3-29A and 3-29B below compare student question 13A with parent question 1-35F/37F (adjusted for sex of respondent) and show occupation category, number of parents disagreeing with the student response and percentage disagreeing for both father's and mother's occupation. For both father's occupation and mother's occupation, the degree of correspondence between child's report and parent's is only 56 and 54 percent respectively.

TABLE 3-29A

PARENT DISAGREEMENT WITH STUDENT REPORT ON PATERNAL OCCUPATION

OCCUPATION	TOTAL	DISAGREE	PERCENTAGE
LABORER	30	13	43%
OPERATIVE, SERVICE	58	23	40%
FARMER, CRAFTSPERSON	80	34	43%
OWNER, PROTECTIVE SERVICE	49	14	29%
CLERICAL, SALES	50	28	56%
TECHNICAL	22	14	64%
TEACHER	2	0	0%
MANAGER, ADMINISTRATOR	92	32	35%
PROFESSIONAL 1 AND 2	57	18	32%
TOTAL:	440	176	44%

TABLE 3-29B

PARENT DISAGREEMENT WITH STUDENT REPORT ON MATERNAL OCCUPATION

OCCUPATION	TOTAL	DISAGREE	PERCENT
LABORER	5	3	60%
OPERATIVE, SERVICE	44	22	50%
FARMER, CRAFTSPERSON	12	10	83%
OWNER, PROTECTIVE SERVICE	20	8	40%
CLERICAL, SALES	155	64	41%
TECHNICAL	9	4	44%
TEACHER	30	10	33%
MANAGER, ADMINISTRATOR	51	32	62%
PROFESSIONAL 1 AND 2	63	25	40%
TOTAL:	389	178	46%

One caveat in interpreting the paternal occupation results is that many students do not live with their natural fathers and the parent and child may not assign the same referent to the term "your father" and "your spouse". Nevertheless, only a quite small percentage of students are separated from their natural mothers, and disagreement on the maternal occupation question is nearly as extensive as on paternal occupation. Needless to remark, this lack of agreement, presumed to reflect student error, is quite large--and larger still if one considers the extremely high rate of nonresponse (predominantly multiple response and Don't Know) that persisted despite an in-school edit of the occupation questions. However, we have argued that a sounder comparison can be made by utilizing a composite SES variable. We therefore took the four reports (mother's occupation, father's occupation, mother's education, father's education), standardized each on a scale of 1-9, summed them, and divided by the number of non-missing values (up to four). Then, on the basis of the student SES distributions, we divided these scores into three groups, corresponding to high, medium, and low SES. Finally, the three-group SES composites constructed from parent and student data were crosstabulated. The results appear in Table 3-30 below. Some 625 parent-student cases (out of 775 parent cases on the data tape) could be matched on this basis.

TABLE 3-30

PARENT-REPORTED VS. STUDENT REPORTED COMPOSITE SES

Parent Report--> Student Report ↓		LOW	MIDDLE	HIGH	Row Tot.
	LOW	192	52	3	247
	MIDDLE	54	200	25	279
	HIGH	7	32	60	99
	Col. Total	253	284	88	625

The effects of missing data have been minimized by drawing on multiple data elements--in 81 percent (625) of the 775 potentially matchable cases it was possible to construe parental SES. Of the unmatchable cases, none are unmatchable owing to parent item nonresponse--all parents could supply at least one SES datum, and 54 percent supplied all four as did 35 percent of the students. (Of course it should also be remembered that while all parents will be included in the base year survey, it is likely that fewer parents than students will actually participate.)

Overall, we see that parents confirm student reports of low SES 77.7 percent of the time, that they confirm student reports of middle SES 71.7 percent of the time, and corroborate student reports of high

SES 60.6 percent of the time. It is also likely that missing data are more common for students in the lower SES range, thus mitigating the apparent tendency of reports to show better agreement at the lower ranges of the SES scale. However, even within this broad tripartite representation of socioeconomic strata, parents disagree with student composite SES reports approximately 28 percent of the time and this seems unacceptably high. In addition, much of the student occupation and education data are missing (multiple response, Don't Know, illegitimate blank or refusal) even after a critical edit.

In our earlier commentary on occupation and education item nonresponse in the student questionnaire, we remarked on the relationship between age and ability to supply SES data. However, both our own field test results and other research suggests an important qualification to this generalization. That is that younger students have a much greater capacity to name and describe parental occupations than to perform closed-coded classifications of occupations. We examined a subsample of student and parent questionnaires from eight schools and determined that our own occupation coding based on the student's open-ended responses had a low level of agreement with the occupation categories chosen by the student. When we constructed SES out of an alternative measure (the student household items question) we found that it had a better correlation with the parental SES composite than with the student SES composite. (Household Items SES also had a better correlation with SES as represented by parent income than with the SES composite drawn from student reports.) Other researchers have found (Colfax and Allen, 1967; Kerckhoff, Mason, and Poss 1973; St. John, 1970) that younger adolescents can usually name and describe parental occupations--or deal successfully with lists of household items--but have difficulty using pre-coded occupation categories. Younger pupils' responses to precoded questions are thought to result in information loss, validity problems, and high status bias.

It is therefore our recommendation that the precoded occupation questions (question 13 in the student questionnaire) appear only on the parent questionnaire. Parents can answer questions about their own educational and occupational background with considerable accuracy. Asking only parents to use the occupation categories would remove from the student instrument a lengthy question series that takes much time, engenders considerable frustration and that both quantitatively and qualitatively fails to produce needed SES data. (It is also a question series that takes a good amount of the in-school editor's time--time that could be better spent ensuring the quality of other items.) If question 13 were dropped, the length of the questionnaire could then be somewhat reduced, or more valuable questions asked instead.

If this recommendation were to be implemented, one problem immediately portends. SES is a critical datum, and if the parent did not participate, there would be no occupation data from which to construct the SES Index. Nevertheless, some student SES items would remain on the questionnaire--household items and rooms in the home, questions which have comparatively low nonresponse (2-6 percent) and which may be more reliable SES indicators than eighth graders' occupation reports. (Also, parental education questions could remain, since these take far less time to do--although nonresponse for these items was greater than 30 percent.) In a few extreme cases, SES information might not be obtained until the First Follow-Up.

While simply dropping the occupation question is one option, another is to retain the open-ended version of the occupation question (37A-E)--which students can generally answer reasonably well. We suggest using the parent version of the open-ended occupation question in the student questionnaire also, suitably simplified (by deleting slashes and simplifying the time reference of the question) for the eight grade audience. If this question is retained, it should be moved--with due attention to not disrupting the flow of current items--to the locator book. Alternatively, it could be printed on a tear-out page. If this were done, an occupational coder could produce an accurate restatement of the SES data in terms of the standard occupation classifications. Such coding has not been budgeted. In order to keep coding expenditures at an absolute minimum, the open-ended occupation questions could be held in reserve, to be used if and only if a parent SES report were lacking. Parents generally had far higher response rates on the occupation items (1-35F, 1-37F) than students, even though they were not designated as critical. By making the occupation and eduacation questions critical items in the parent questionnaire and investing in additional retrieval, the number and quality of parent occupation reports could be maximized.

A final option would be to include the open-ended occupation question on the student instrument and code all responses, regardless of whether the parent provided the needed SES reports. This option is unattractive for two reasons. It would be very expensive--and while this large occupational coding investment would certainly provide more data, those additional data points would be gathered from the second-best respondent, the eighth grade student.

3.2.7.2 Early Educational Experience

In examining high nonresponse items on the student questionnaire, we found that one data element in question 56 had the highest nonresponse of any item in the instrument (56E, Did you attend extended day?), while other items from the series also had problematic response rates. This same series of questions is also asked of parents (3-1), with the student as the point of reference to the parent questions. Since students appear to have problems with some of these questions--which are about very early instructional and pre-instructional programs--it is important to ask whether parents can better supply such data. We compare student and parent responses below.

TABLE 3-31A

CROSSTABULATION OF STUDENT Q56A VS. PARENT Q3-1D: ATTENDED KINDERGARTEN

Q.3-1D-->		YES	NO	DK	Row Total
Q.56A	YES	559	51	3	613
V	NO	18	21	--	39
	DK	4	2	--	6
Col. Total		581	74	3	658

TABLE 3-31B

CROSSTABULATION OF STUDENT Q56B VS. PARENT Q3-1A: ATTENDED DAY CARE

Q.3-1A-->		YES	NO	DK	Row Total
Q.56B	YES	121	64	--	185
V	NO	48	255	3	306
	DK	19	52	--	71
Col. Total		188	371	3	562

TABLE 3-31C

CROSSTABULATION OF STUDENT Q56C VS. PARENT Q3-1B: ATTENDED NURSERY SCHOOL OR PRESCHOOL

Q.3-1B-->		YES	NO	DK	Row Total
Q.56C	YES	316	49	1	366
V	NO	42	154	2	197
	DK	23	28	--	51
Col. Total		380	231	3	614

TABLE 3-31D

CROSSTABULATION OF STUDENT Q56D
VS. PARENT Q3-1C: ATTENDED HEAD START

Q.3-1C-->		YES	NO	DK	Row Total
Q.56D	YES	32	31	—	63
V	NO	18	311	7	336
	DK	17	98	3	118
Col. Total		67	440	10	517

TABLE 3-31E

CROSSTABULATION OF STUDENT Q56E
VS. PARENT Q3-1E: ATTENDED EXTENDED DAY

Q.3-1E-->		YES	NO	DK	Row Total
Q.56E	YES	18	14	2	34
V	NO	27	299	13	339
	DK	21	119	5	145
Col. Total		66	432	20	518

We see from the above crosstabulations that there is a fair amount of disagreement between parents and students on these items. Perhaps even more striking is the high degree of student uncertainty about some of the items, and the capacity of parents to answer those items to which the student has responded Don't Know. Overall, parents used the Don't Know option 36 times. Students in this analysis (that is, those whose parent had also participated) used Don't Know 395 times, over ten times more often. Parents were generally able to give answers where students had opted for Don't Know--in 56B, for example, all 71 of the student Don't Knows have been answered yes or no by parents; for 56C, all 51 student Don't Knows are answered yes or no by parents; in 56D, 115 of 118 student Don't Knows were resolved by parents, and in 56E, 140 of 145. Other forms of nonresponse, such as illegitimate blanks, are also far higher for students than their parents. All in all, it appears that parents are better data sources for questions about early childhood instructional and pre-instructional programs than are students. The parent questionnaire should be regarded as the primary source for these items. The items may also be asked of students, in order to obtain a second best source if the parent does not respond, provided that this inclusion is not at the expense of valuable questions for which the student is the best information source.

However, we strongly recommend that category E--extended day--be dropped from both questionnaires. That neither set of respondents was sure of the meaning of "extended day" is attested to by the high rate of both student (39 percent) and parent (25.1 percent) nonresponse. (For those who do answer, the response is overwhelmingly negative.)

3.2.8 Scale Reliabilities

This section concerns two attitude scales--internal versus external locus of control (question 25, items B, C, F, G, H, K, M, O, Q) and self-esteem (question 25, items A, D, E, I, J, L, N, P, R, S).

Paper IV, "Considerations on Values and Attitudes," in the series of Position Papers on NELS:88, issued in August of 1985 just before release of an RFP for the project, made two main recommendations concerning attitude scales for the student questionnaire. One recommendation concerned the number of scale items that should be used and the other concerned the need for personal rather than general reference in locus of control items.

The reason additional items were recommended was to meet the goal of increasing scale reliabilities. The position paper observed that in NLS-72 and HS&B, competition for space had sometimes reduçed attitude scales to three or four items each, too few to achieve robust reliabilities. In modifying the High School and Beyond locus of control and self-concept composites for NELS:88 eighth graders, we therefore took the opportunity to add additional items to each scale.

In fact, High School and Beyond had 12 items on internal versus external locus of control and self-esteem, although only eight of these were used to form the two four-item composite variables for self concept (BB058A, -C, -D, and -H) and locus of control (BB058B, -E, -F and -G), scales that were strictly equivalent to those of NLS-72. We took the eight items, and three of the four remaining items. We made minor changes in these items so that they could be understood by typical eighth graders (For example, "I take a positive attitude toward myself" was changed to "I feel good about myself") and added seven items for a final total of nineteen. We also modified items so that they would refer directly to the respondent (for example, "Good luck is more important than hard work for success" was changed to "In my life, good luck is more important than hard work for success"), and tried to correct the response set bias on the locus of control scale.

There are two reasons for scrutinizing the performance of these attitude items especially closely. One is that the two scales in their present form are, as indicated above, importantly different from the NLS-72/HS&B scales--untested items have been added and items have been rewritten. In addition, even without these changes, it would be necessary to examine the performance of these scales with eighth graders. While an important goal is to improve on the reliabilities achieved in the earlier longitudinal studies, moving from twelfth and tenth graders to eighth grade is likely to make obtaining high reliabilities all the harder.

The two scales were not designated critical items in the field test. The response frequencies indicate a very high level of response for the nineteen items that comprised the scales, ranging from over 99 percent (25A) to, at worst, 97.2 percent (25O)--only two of the nineteen items had nonresponse rates above two percent.

A measure of reliability that is routinely applied to scales and tests is Cronbach's alpha or coefficient alpha. Coefficient alpha is essentially a measure of the internal consistency and repeatability of a measure. In addition to computing coefficient alpha, some analysis packages (including SPSS-X, which we utilized for reliability analyses) also give statistics for the item-to-total correlation and the alpha if the item is deleted. Thus one can identify those items that make a small, no, or even negative contribution to the overall reliability of the scale, as well as assess which items contribute most to achieving a reliable scale. While we would not feel confident predicting, from a non-probability sample of 1376 students, the levels of scale reliability that would be achieved with a probability sample of over 26,000 students, the field test sample is highly suitable for use in appraising the effectiveness of individual scale items.

Again, with the qualification that the field test does not allow us to generalize to probable coefficient alphas for the two scales in the base year, it is nevertheless interesting and quite possibly instructive to examine the results of the reliability analysis. Overall, the reliability coefficient alpha for the self-esteem scale was .82, and for the locus of control scale .60--although alpha for the latter scale could have been raised to .63 by deletion of the weakest item. For comparison purposes, the reliability coefficient alpha for the HS&B and NLS-72 scales was somewhat lower--.66 for the self-esteem composite and .56 for locus of control (Kolstadt, in Position Paper IV).

When further statistics for the self-esteem scale are examined, we see that deletion of any item would lower the alpha, although the most dispensable item would be 25E ("I am able to do things as well as most other people"), which has an item-to-total correlation of only .377 and adds little to the reliability (alpha if item deleted is .816). (This is, however, an HS&B/NLS-72 item that was used in the composite variable.) The most indispensable items are 25L ("At times I think I am no good at all"--HS&B only, not used in the composite), 25A ("I feel good about myself"--HS&B/NLS72, used in composite), and 25S ("All in all, I pretty much feel that I am a failure"--new item) with item-to-total correlations of .571, .571, and .570 respectively). Our recommendation is that this scale not be changed.

When further statistics for the locus of control scale are examined, we see that (as in HS&B and NLS-72) it works somewhat less satisfactorily than the self-esteem scale. The highest item to total correlation is .493, for item 25G ("My plans hardly ever work out, so planning only makes me unhappy"--from HS&B/NLS-72, used in composite), and three items have poor correlations--25H ("I try to accept my condition in life, rather than try to change things"--HS&B/NLS-72, used in composite) at .178, 25K ("I have a big influence over the things that happen to me"--new item) at .180, and 25O ("What happens to me is my own doing"--HS&B only) at .067. In the correlation matrix, 25O had weak negative correlations with 25B, 25C, and 25H. If the weakest item--25O--were deleted, the alpha would increase to .629. If 25H were deleted, it would make a tiny (third decimal) contribution to the alpha. For all other items, deletion would decrease coefficient alpha. Item 25O was taken from HS&B--however, it was not used in the composite locus of control scale. We recommend that it be deleted from the base year questionnaire for NELS:88. Although 25H apparently does not contribute to the scale, it might be advisable to keep it because it was used in the HS&B/NLS-72 composite. However, note that 25H is an item with which internals must disagree while 25O is an item with which they must agree. To delete 25O without deleting an item (like 25H) with which internals must disagree (or externals agree) makes the disagree items too dominant in the scale and risks creating a response set bias. (However, the chances of creating a response set may be lessened because items for each of the scales are interspersed.) It may, then, be advisable to write a new item for this scale, with which those having an internal locus of control would agree. Of course if this were done, there would be no further opportunity to statistically evaluate the performance of that item prior to the base year itself.

3.2.9 Item Response Variation by Selected Student Classification Variables

While we have analyzed nonresponse on the item level, we have not addressed the question of the extent to which item nonresponse may vary by respondent characteristics. Pronounced variations in nonresponse that correlate with common or defining features of groups of respondents have possible implications for the evaluation and revision of the student questionnaire. For this reason, we have crosstabulated item response with a variety of standard student classification variables. This analysis can yield several kinds of important findings.

It is of interest, for example, to know whether nonresponse is a problem for particular groups of people. Do the same people tend to reappear as the nonrespondents on a variety of items, or on some particular type of item--or is nonresponse highly item-specific and randomly distributed throughout the respondent population? If, for example, those at higher risk for dropping out--and let us say that low SES, plus low grades and low assigned track are reasonable predictors of school noncompletion--are systematically high in item nonresponse, and are more likely to fail to answer both locator and main questionnaire items, this may have implications for how these items should be written, or whether special data supplementation efforts are required for this identifiable high item-nonresponse group.

Such analyses also may add to our understanding of the causes of item nonresponse, and point to particular problems in question wording or format. For example, if item performance varies with respondent characteristics, this may indicate that a particular item has a less clear meaning to one group than to another. Many group-related differences in response to items can be mitigated by question rewording, but even when this is not the case, it is necessary to be aware of the possible effect of group-associated item nonresponse on the reliability of estimates. The fact that the NELS:88 field test data so richly characterize the respondent population across a considerable range of home and school-related factors provides a substantial opportunity for enlarging our understanding of item nonresponse in a student questionnaire.

Eleven questions were chosen for further analysis to discover underlying relationships which might further elucidate the nonresponse observed. Questions were chosen on the basis of the theoretical interest which some of the classificatory variables might have for the question and the chance that theoretical considerations might lead to refinements in the questions. Consideration was also given to representing different types (both in terms of form and content) of questions. Thus the selection represents both reports of respondent behavior and reports on parental behavior and expectations, Locator Book and Main Questionnaire items, and "circle one" and "circle all that apply" formats. All but one of the items (56A) were problematic variables, with nonresponse of eight percent or higher. Crosstabs were run using respondent's sex, race, ethnicity, school sector, school urbanicity, SES by parent report, grades by self-report, pattern of early language acquisition, and academic track as independent variables for each of the questions.

3.2.9.1 Analysis Procedure

Student responses to Locator Question 10 were used to determine sex. Main Questionnaire question 2 was used to determine race; Black, White, and Other were the racial categories utilized. Ethnicity was taken from Main Questionnaire question 1, the "Other Hispanic" and "Other Asian-Pacific Islander" categories were not utilized because earlier field test analyses had demonstrated that there was a high level of error in responses to these categories. Ethnicity is actually a breakdown into Hispanic, Asian-Pacific Islander, and Other.

School sector was taken from the Quality Education Data (QED) tape used during the contacting stage, and schools were classified as either Public, Catholic, or Other Private. School sector was not a statistically significant differentiating factor for any of the questions analyzed. Similarly, the urbanicity classification was derived from QED data used at the contacting stage, and schools were classified as urban, suburban, or rural. SES was derived from student report of parental education and occupation. Future analysis will examine these same questions on the basis of a subsample of students for which we have parental versions of SES.

Student grades by self-report were taken from Main Questionnaire question 63. Students were grouped into high, medium, and low grades. Students indicating that they received mostly As were coded as receiving high grades; students indicating they received about half As and half Bs, mostly Bs, and about half Bs and half Cs were coded as receiving middle or average grades, while students indicating that they received lower grades were coded as receiving low grades. Early language acquisition was taken from student responses to Locator Question 16, which asked students whether or not they had spoken a language other than English prior to entering school.

Academic track was determined by student responses to Main Questionnaire questions 43A, 43B, 43C, and 43D. A scale was developed which utilized all nonmissing data students in tracking environments provided. The scale was recoded into three groups according to theoretical considerations, such that students with half or more than half of their classes in the lowest track and none of their classes in the highest track would be classed as low track students. Students with all or three out of four of their classes in the highest track, and none of their classes in the lowest track, would be classed as high track students. Students with other patterns of track assignment would typically fall into the middle track.

Some of the independent variables have important theoretical inter-relationships which have not been treated in this analysis. Although the limited sample size does not permit much in the way of multivariate analyses, cursory examination of those inter-relationships will be included in the final draft.

3.2.9.2 Findings

Part one of Table 3-32 below lists the content of the eleven questions chosen while part two of Table 3-32 marks the independent variables which produced differences in performance for different groups significant at or below the .05 level. An "x" marks those at or below the .05 level of significance, an "o" marks those at or below the .01 level of significance. Questions are grouped in terms of question content. Each question will be discussed in turn with regards to each of the statistically significant independent variables. All questions were high nonresponse questions except Question 56A, included as a point of comparison for Questions 56B, 56C, 56D, and 56E.

TABLE 3-32

PART ONE: CONTENTS OF QUESTIONS

Locator Question 13	What type of program does the high school the student expects to attend have?
Question 28	In what type of high school program will the student enroll?
Question 18B	Have the students parents phoned or spoken with teachers or counselors this academic year?
Question 27A	What are the father or male guardian's educational aspirations for the student?
Question 27B	What are the mother or female guardian's educational aspirations for the student?
Question 33	Has the student been given aptitude tests?
Question 56A	Did the student enroll in kindergarten?
Question 56B	Did the student enroll in day care?
Question 56C	Did the student enroll in nursery school or preschool?
Question 56D	Did the student enroll in Head Start?
Question 56E	Did the student enroll in Extended Day?

TABLE 3-32 (CON'T)

Question	Sex	Race	Ethnic	Track	Grades	SES		Urban	Lang
						S	P		
Future School Program:									
Loc Q 13		x	o	o	o		o		o
Question 2B				o	o	x	o		
Parental Contact with School:									
Question 18B				o					
Parental Aspirations for Student Education:									
Question 27A		x				o	x	o	
Question 27B		o		o	o			o	
Aptitude Testing:									
Question 33		o						x	
Pre-first grade school experience:									
Question 56A	o	o		o			x	x	
Question 56B	x							x	
Question 56C		o		o	x			x	x
Question 56D	None								
Question 56E	None								

Out of one hundred ten possible statistically significant differences, only thirty-three are observed. (Under a more stringent criterion of significance--<.01--that number drops to 21, or 19.1 percent of the potential number.) Including the sector of the school, which did not produce any statistically significant differences in performance, fully seventy-seven situations exist which did not produce statistically significant differences. Thus, this selective examination of the field test data would seem to suggest that nonresponse is more or less evenly distributed throughout the student population except for a few situations discussed below.

Only two statistically significant differences in performance are observed on the basis of sex and the student version of SES, while four are observed on the basis of SES as calculated from Parent data. Race, track, and urbanicity each account for six of the statistically significant differences, and the pattern of these differences suggests that these three independent variables may be somewhat related. Indeed, of the eighteen statistically significant differences collectively accounted for by race, track, and urbanicity, fully half (9) occur in three situations in which all three are statistically significant. It is worth noting that in two of those three instances, grades also produced statistically significant differences. In addition, race and track both produced statistically significant differences in one case, and race and urbanicity produced statistically significant differences in two cases. Differentiation on the basis of race never produced a statistically significant difference in performance that was not accompanied by either a difference on the basis of academic track or of urbanicity, though academic track was unaccompanied by urbanicity and race twice, and urbanicity was unaccompanied by race and track once.

3.2.9.3 Item-by-Item Analysis

Locator Question 13 -- Race, Ethnicity, Track, Grades, SES (Parent), Language

Locator Question 13 asks students about the program of the high school they expect to attend in tenth grade. Levels of nonresponse were high for all groups. The levels of nonresponse observed for different groups provides further evidence that the terms used in the question are not clear to many students.

The differences observed for track and grades are as predicted by theory. Students with higher grades by self-report and students in higher tracks register lower nonresponse rates than their counterparts on Locator Question 13. Below, in Table 3-33, the nonresponse rates for each of the three groups is provided:

TABLE 3-33

	Nonresponse Rates		Nonresponse Rates
High Track	25.0%	High Grades	21.8%
Middle Track	31.1%	Middle Grades	32.4%
Low Track	50.0%	Low Grades	42.1%
Total	30.8%	Total	31.5%

This item is very sensitive to track, and less sensitive to grades. It should be noted that student track is constructed from student-provided data and is therefore subject to a degree of nonresponse bias. Thus, the nonresponse of the low track students may be even worse than indicated by the data available, if the low track students evidenced a rate of nonresponse to the tracking questions similar to that observed in other questions.

To increase the overall response rate and the response rate of low track students and students with low grades, we recommend providing more explanatory information in the answer categories available.

Question 18B -- Track

Question 18B asked students whether or not their parents had phoned or spoken to teachers or counselors during the current academic year. As expected, nonresponse was lower for the higher track students. High track registered a nonresponse rate of 9.1 percent, the middle track registered a rate of 13.3 percent, and the low track registered a nonresponse rate of 26.9 percent.

The relative performance of students on this question may or may not be related to different school experiences. It seems doubtful that the wording of the question is the cause of student difficulty on this item. Question 18B is reproduced below:

18. Since the beginning of this school year, has either of your parents or guardians done any of the following:

(CIRCLE ONE ON EACH LINE)

	Yes	No	I don't know
b. Phoned or spoken to your teacher or counselor.....................	1	2	8

The language of the question does not seem to be too difficult for students to handle. Thus, no recommendation is suggested for altering the text or formatting of the question.

Question 27A -- Race, SES (Student), SES (Parent), Urbanicity

Question 27A asked students about the father or male guardians educational aspirations for the student. The relative nonresponse rates observed for different groups is probably related to the different experiences of the students rather than the wording or subject matter of the question. For example, the relatively high nonresponse rate for Blacks on this question may be related to the greater incidence of single parent female-headed households among Blacks. If this is the case, presumably no alteration in the questionnaire will correct the missing data problem.

Given that the basis of the differences in nonresponse rates for different groups is probably based upon their differing experiences, no adjustment in the question is recommended.

Question 27B -- Race, Track, Grades, Urbanicity

Table 3-34 below compares student performance on Question 27A, discussed above, to student performance on Question 27B. Question 27A asks students how far in school their fathers or male guardians want them to go, while Question 27B asks students how far in school their mothers or female guardians want them to go:

TABLE 3-34

Nonresponse Rates

Races	Question 27A	Question 27B
Blacks	32.0%	20.7%
Whites	23.2%	13.7%
Others	27.9%	22.1%
Total	25.8%	16.7%

It does not seem plausible that most of the nonresponse on Question 27A is related to the absence of the father or male guardian, given the lower but still high levels of nonresponse for all racial groups on the similar question (Question 27B) for the mother or female guardian. Thus, the differences observed for different groups may have as much to do with the presence of guardians as it does with the role those guardians play in planning the educational career of the student. If this is the case, nonresponse again is less related to the wording and format of the question and more related to the differing experience of students. This information is of itself an important datum for researchers. Given that differing nonresponse rates are probably not related to question wording or format, we recommend that the item be retained as it is.

Question 28 -- Track, Grades, SES (Student), SES (Parent)

Question 28 is similar to Locator Question 13, asking students in which type of high school program they will enroll, and as such is prone to many of the same difficulties which attend to Locator Question 13. Nothing in the analysis of Question 28 contradicts the findings of the analysis of Locator Question 13; indeed, the analyses evidence a high degree of similarity. Thus, the recommendations provided for Locator Question 13, namely, that more explanatory text be provided for each of the available answer categories, are also made for adjustment of Question 28.

Question 33 — Race, Urbanicity

Question 33 asked students whether or not they had taken any aptitude tests. Again, differences in the experience of students may have affected their ability to answer the question. For example, differences in program availability and incidence of testing may have affected the differential nonresponse rates. Still, some degree of nonresponse is attributable to the wording of the question. Thus, we recommend providing more explanatory information for students to enable them to recognize aptitude tests which they may have taken in the past.

Question 56A -- Sex, Race, Track, SES(Parent), Urbanicity

Question 56A was included as a point of comparison for Questions 56B, 56C, 56D, and 56E. Question 56A asks students whether or not they were enrolled in kindergarten. Differences in performance were observed for this question concerning student experience or nonexperience with kindergarten. The nonresponse rates for each of the independent variables are listed below in Table 3-35:

TABLE 3-35

	Nonresponse Rate		Nonresponse Rate
Sex		Track	
Male	7.2%	High	3.4%
Female	2.4%	Middle	5.6%
		Low	17.3%
Race		Urbanicity	
Black	9.4%	Urban	7.8%
White	3.2%	Suburban	4.5%
Other	5.7%	Rural	2.0%
SES (Parent)			
High	2.2%		
Middle	2.4%		
Low	7.0%		

The largest variation in nonresponse rates is between high track and low track students. This may be related to difficulties inherent in the question wording or it may be related to differing experiences for high and low track students. Overall, however, the nonresponse rate for the question is not high; this question is included as a point of comparison for the questions which ask about other types of pre-first grade student experiences.

Question 56B -- Sex, Urbanicity

Question 56B asks students whether or not they were in day care. Once again, differences in the experience of students in urban, suburban, and rural settings may explain the diferences in nonresponse rates. If possible, extra explanatory text might prove helpful, but one is hard-pressed to find more illuminating terms for day care which would be meaningful for an audience of eighth-graders. Thus, no formal recommendation is made.

Question 56C -- Race, Track, Grades, Urbanicity, Language

Question 56C asks students whether or not they were enrolled in nursery school or preschool. Nonresponse has two main sources: 1) memory difficulty and 2) differing experiences. Students understandably encounter difficulty in trying to recall whether or not the activity which they attended on a daily basis at the age of three was, indeed, nursery school. In addition, differences observed for sub-groups are probably based in differential experiences. For example, because this question seeks to measure student participation in pre-first grade programs, the differences in nonresponse rates observed on the basis of language minority status may simply be related to the greater incidence of students born in nations other than the United States in the language minority category. Students born in other nations may not have moved to the United States at a young enough age to experience nursery school or preschool; thus, the question may confuse them because they have not been exposed to the term or the experience.

Question 56D and Question 56E -- None

Question 56D asks students whether or not they were enrolled in Head Start, while Question 56E asks students whether they were enrolled in Extended Day. It is important to note that none of the independent variables distinguished significant differences in the nonresponse rates for these two questions. Rather than indicating that the two questions are performing equally well for all groups, this information indicates that the items are performing at a relatively static and decidedly poor level for all sub-populations. Significant differences in performance owing to track, grades, urbanicity, race, SES, or sex might point toward a sub-group which found the two questions less difficult, and thereby point toward a way in which the question might be adjusted to become relevant for a broader audience. At the very least, relative success in dealing with these questions for one sub-group might be a basis for retaining the two questions, on the reasoning that across all similar items some types of students may have had and remembered exposure to the items represented in questions 56D and 56E, and therefore treatment of all items together would be useful to an analyst devising a measure of pre-first grade organized school experience. Field test data suggest that Questions 56D and especially 56E do not contribute in this manner to such a measure. Thus, we recommend removing Question 56E from the base-year student questionnaire.

3.2.9.4 Conclusions

For many of the high nonresponse items, the differences in nonresponse rates for groups were statistically significant even though no group evidenced adequate ability to answer the question. Instead, the differences observed simply provided further evidence that questions which create difficulty for all students might be more difficult for students in lower academic tracks or with lower grades than for students in higher academic tracks or with higher grades. Data also suggest that high track students and students with high grades are not bored by the level of the questionnaire, given their better performance on high nonresponse items. In every situation, students performance was better the higher the academic track, and the same relationship was observed concerning grades by student self-report.

Ethnicity and language use in general seem uncorrelated with nonresponse. However, in Question 13, a specialized terminology is used that is unfamiliar to substantial numbers of mainstream students. Specialized vocabularies present even greater problems for language minority students.

Urbanicity may be closely tied to other variables which have already been discussed, or some questions may indeed have differential meanings depending upon the student's experience, differences that may be traced to an urban/suburban/rural difference.

One surprising finding is that few significant differences are observed between different SES groups. This is a positive finding, and suggests that efforts to devise a document with a minimal level of bias was successful to some degree. Still, if high nonresponse is associated with low SES and SES is developed from data in the student questionnaire, then the data used to develop the SES measure is also prone to the damaging effects of nonresponse. This must be taken into consideration in the revision of the base year documents.

In sum, judging from a limited number of high nonresponse items, it appears that respondent characteristics did not have a strong and pervasive effect on item performance in the field test student questionnaire. The evidence supports our finding, reported in section 3.2.6, concerning item nonresponse by item position in the questionnaire. However, analysis of nonresponse over the course of the entire questionnaire seems to indicate that some statistically significant differences in performance are observed for different groups, particularly on the basis of academic track, race, and grades. Still, when attention is focused on a selection of items with the highest nonresponse, statistically significant relationships between response and theoretically important classification variables are observed less often than not. Where such differences are observed, it is usually more plausible to see differential nonresponse as more a function of genuine lack of knowledge--of the differential experience and answering ability of the respondent groups--than as evidence of lack of clarity in item wording or questionnaire format and logic. Nevertheless, a few of the observed relationships--track is the most dramatic example of this, with a statistically significant (at .01) relationship seen on six of the eleven items--are disturbing. It may indeed be that low track students are dramatically less aware of parent-teacher communications (Q. 18) than high track students. If so, nonresponse, as an indicator of this lack of awareness is an important datum in itself. But no analyst should forget that item-level nonresponse can be, just as school- and individual-level nonresponse, a biasing factor. The fact that respondent characteristics appear to seldom have a major effect on item performance makes it all the more important to be aware of the exceptional cases where they may indeed have such an effect.

3.3 The Cognitive Test Battery

3.3.1 Introduction and Background

The Educational Testing Service (ETS) was contracted by OERI to develop the NELS:88 test battery in order to assess students' cognitive growth during their transition from grade eight to grade twelve. The long term goal of the NELS longitudinal study is to estimate the extent and correlates of cognitive growth in four cognitive areas. The four cognitive areas are:

- Reading or Literacy
- Mathematics
- Science
- Social Studies

In addition to measuring growth and its educational antecedents, a secondary purpose of the NELS test battery is to provide a common scale such that comparable HS&B cohorts can be compared on a cross-sectional basis with the NELS cohort in the area of mathematics and possibly reading. HS&B 1980 to 1982 Sophomore to Senior gains in mathematics and possibly reading can be contrasted with the comparable NELS cohort gains taking place between 1990 and 1992.

In order to better understand the NELS longitudinal testing design, it would be useful to contrast the goals and procedures of a large scale cross-sectional design such as NAEP with those of a longitudinal design such as NELS. Both test batteries (NAEP and NELS) are subject to relatively severe limitations with respect to the amount of testing time that is available. Within these testing time limitations NAEP attempts to assess performance in a number of content areas at both the total score and at the subscore level when possible. NAEP can be thought of as an assessment procedure analogous to a thermometer which takes the Nation's educational temperature in a number of content areas and at various stages of student development. Because of testing time limitations and the fact that NAEP will be attempting to develop subscores for various cross-classifications of content by cognitive process, the measurement reliability of these subscores will be relatively low. However, they will still be sufficiently reliable for computing scores such as means aggregated across the total sample receiving a particular subset of the measures. Students in the NAEP administration receive only a subset of the measures in order to maximize the number of content areas that are covered in a specific administration. Since the particular block of measures a student receives is assigned in a random fashion, the aggregate (mean) scores based on this particular block of items and students can be assumed to be an unbiased estimate of the total student population's performance. This balanced incomplete block testing design enables the NAEP researchers to inform policy makers about the average performance of the nation's students in a particular content area. However, since a relatively small proportion of the total NAEP sample receives a given block or content area, estimates of student performance for finer cross-classifications of students can be relatively unstable.

Cross-sectional trends in averages can also be estimated but the policy interpretations are subject to all the usual qualifications about using cross-sectional data to draw longitudinal inferences.

A longitudinal study such as NELS attempts to inform policy makers about questions having to do with how much change occurred and why students have changed or gained in performance over time. In order to deal with this type of policy questions longitudinal studies need to be more "high fidelity" than cross-sectional designs given the same amount of testing time. High fidelity as used here simply means measuring fewer things with greater accuracy. Lower fidelity designs such as NAEP measure many things with somewhat less reliability. This lower fidelity design is appropriate for NAEP's primary purpose--the reporting of aggregate scores without too fine a breakdown. Obviously if testing time were not limited (as are budgets and the patience of the nation's school systems) these compromises would not be necessary. Another way to describe the longitudinal design in NELS is--fewer things each being measured on many students while NAEP would be best described as many things each being measured on fewer students.

Longitudinal studies of gain require more reliable measurement since they attempt to correlate differences in school processes at the individual level with corresponding differences in gains in achievement at the individual level. One attempts to correlate differences between the educational processes received by Jane and Johnny with differences in their amounts of achievement gains. In summary, the balanced incomplete block design as used in NAEP is less appropriate for NELS since having large samples receive more items is necessary in NELS type "individual difference" models in order to:

- Maintain sufficient accuracy at the individual score level to reliably estimate correlates of gain.
- Allow for finer cross-classifications in order to investigate whether the educational process works the same for different kinds of individuals.

One potential drawback of longitudinal designs that operate within a limited amount of testing time is that it is difficult to estimate subscores within a given test that have sufficient reliability for change measurement. Rather than give up the notion of having interpretable subscores in a longitudinal design, we propose a slightly different approach to calibrating and scoring the tests that will yield subscores with sufficient reliability for change measurement given certain assumptions of unidimensionality.

Basically this approach assumes that within the total test there are clusters of items (testlets) that are internally homogeneous with respect to difficulty level and that can be used to behaviorally anchor the total score scale. In order to behaviorally anchor the scale these testlets should form a hierarchy of skill levels. For example, in Mathematics the lowest skill level might be a testlet of items describing single operation arithmetic on whole numbers. The next skill level could be a cluster of items describing arithmetic problems requiring multiple operations, etc. This approach is similar to that used in developing the NAEP behaviorally anchored reading scale except that we prefer to use clusters of items to mark a scale point because of the enhanced reliability of clusters over single items. This procedure "ties" the test scores to a given level of proficiency and thus provides diagnostic information about any given examinee's performance. Statements can be made about what percentage of any given population is operating at a particular proficiency level, say, mastery of arithmetical operations on whole numbers.

This behaviorally anchored scaling procedure (Rock & Pollack, 1987) has been developed and applied to the HS&B mathematics items and has demonstrated significant improvement over the traditional measures of change. The application of this procedure to the HS&B Mathematics test is described in detail (see List of Appendices). In the case of the HS&B mathematics items,the hierarchically ordered scales provided diagnostic information on the skill levels that showed the greatest changes as well as demonstrating significantly stronger relationships between change and school processes.

It is quite conceivable, in fact likely, that more than one hierarchical model could fit the data. In addition to the model described above, which is primarily a curriculum sequence model of development, other hierarchical models could be posed that would include clusters describing low level arithmetic operations, and then a more difficult cluster that required an application of all the simple lower level operations plus some additional reasoning skills. The latter two-level hierarchy might be fitted separately for different mathematics content areas. Similarly in the reading area, performance on clusters of items requiring only vocabulary skills and attention to detail might mark the lowest proficiency scale point. The next higher skill level cluster would require not only proficiency in the vocabulary but also require the ability to make inferences from the passage. Because familiarity of content is so important in reading for comprehension, it may be desirable to develop hierarchical clusters within those content areas having sufficient items to form the clusters. It is anticipated that both the mathematics and the reading item pool may furnish sufficient items to form clusters that in turn have desirable scale properties and diagnostic interpretations. The preliminary field test results suggest that the above models may be less appropriate for the Science and Social Studies areas.

The following sections present and discuss the preliminary results of the field test in some detail.

3.3.2 Pretest Sample Design

The pretest sample included 1,376 students at 51 schools with an 8th grade; 1,131 students at 30 schools with a 10th grade, and 1,017 students at 30 schools with a 12th grade. The sample was drawn from 5 states; New York, California, Florida, Illinois, and Texas.

Two pretest forms were constructed--Form A and Form B. Form A included the pretest items for the Reading and the Science test. Form B included the Mathematics items and the Social Studies items. Table 3-36 below shows the number of pretest items in each content area and the test administration times.

TABLE 3-36

NUMBERS OF PRETEST ITEMS AND THE TEST ADMINISTRATION TIMES

Cognitive Area	Number of Items	Administration Time
Reading (Form A)	50	55
Science (Form A)	42	30
Mathematics (Form B)	82	60
Social Studies (Form B)	60	25

The two test forms were spiralled within each grade level. That is, half of the students at each grade level received Form A and the other half received Form B. Since tests were nested under forms, this amounted to spiralling tests. A total of 1599 students across all three grade levels took Form A (Reading and Mathematics). The Form A totals included 700 eighth graders, 470 tenth graders, and 429 twelfth graders. Similarly, 1,812 students took Form B (Mathematics and Social Studies). The Form B totals included 667 eighth graders, 599 tenth graders, and 546 twelfth graders. While these numbers fell somewhat short of the original target numbers, i.e., 600 on each form within each grade, it is felt that the sample size is still sufficient to estimate the necessary item parameters and select the items to be included in the final forms.

Table 3-37 below shows the percent of examinees that completed the tests by grade level.

TABLE 3-37

PERCENT OF EXAMINEES COMPLETING EACH TEST BY GRADE LEVEL

Test Content	Grade 8	Grade 10	Grade 12
Social Studies	97	97	98
Mathematics	87	92	89
Reading	98	99	98
Science	95	95	94

The percent of the pretest sample completing each test ranged from 87 percent of the students in the 8th grade on the Mathematics test to 98 percent of the students in the 12th grade on the Reading test. A test is considered relatively unspeeded if approximately 90 percent percent of the examinees complete the test. While the Mathematics did not quite achieve the 90 percent level of completion at the 8th and 12th grade, it was felt that it was close enough to be considered unspeeded.

3.3.3 Length of Final Forms

Based on the number of items and the test timings used in the pretest (Table 3-36) and the completion rates shown in Table 3-37 above, baseline projections of the desired test lengths of the final forms can be estimated. Given that the maximum amount of testing time available is in the neighborhood of 1 to 1 1/2 hours the following test length projections were made:

Reading- 20 items administered in 20 minutes.
Mathematics- 40 items administered in 30 minutes.
Science- 25 items administered in 18 minutes.
Social Studies- 30 items administered in 12 minutes.

This allocation of items and testing time yields a total testing time of approximately 1 hour and 20 minutes. These projections take into consideration projected reliabilities of relatively unidimensional test content areas. These may be somewhat off for potentially multidimensional content areas such as Science and Social Studies. Just how far off these projections are will become clearer in the next section dealing with the item analysis statistics.

3.3.4 Selecting Items For Measuring Change

In order to arrive at efficient estimates of change scores, the final forms should be constructed to minimize "floor" and "ceiling" effects. Floor effects occur when test forms are much too difficult for a large number of the examinees. When this occurs the low ability examinees receive chance scores on the first testing. Thus there is no discrimination among the low scoring individuals at the time one testing. If the test is still too difficult at the time of the second testing the same individuals will once again receive chance scores. In this case there will be no discrimination among low ability individuals at time one or time two and more importantly there will be no reliable discrimination among examinees with respect to amounts of change. Estimates of mean change for these individuals will also be inaccurate. If the test only has floor effects at time one but not time two for low ability individuals the situation is less serious. When this occurs the reliability of the individual score changes may be attenuated while mean changes for these individuals will be somewhat underestimated.

Ceiling effects can even be more damaging with respect to estimating gains accurately. If the test tends to have insufficient numbers of the more difficult items on the second and third testings, the change scores will be artificially constrained for high ability examinees. This phenomenon contributes to the typical finding of a negative correlation between "raw" gain scores and the initial test scores. Given rather limited amounts of testing time a compromise solution is to develop test forms that are "adaptive" to the ability level of the examinee. That is, the examinee is presented items that are appropriate for his or her ability level. This procedure tends to minimize the possibility of floor and ceiling effects biasing the estimates of the score gains. This type of tailored test is best administered and scored on a computer. The level of "tailoring" of the item to the ability of the examinee can vary from computer-based completely adaptive tests with all examinees receiving different items to mildly adaptive test forms appropriate for paper and pencil.

Our approach here is to build grade adaptive tests where necessary. Grade adaptive tests, i.e., tests whose distributions of item difficulties vary by grade level rather than at the individual level, can be administered in a paper and pencil format under standardized conditions. Grade adaptive tests should be sufficiently adaptive to minimize floor and ceiling effects and yet maintain the same standardization of administration procedures as HS&B and NAEP. This will facilitate crosswalking scores between the various populations where appropriate.

There is no "free lunch" however; items used in adaptive tests must be scalable, which in turn means that they should form a reasonably unidimensional item pool. This allows one to put test scores based on different items that are given in the different grades on the same scale using Item Response Theory (IRT) methods. Originally it was proposed that Mathematics, Reading, and Science be grade level adaptive. The requirement that the Social Studies test cover the domains of American History, Government, Ethics, and Geography made it a less likely candidate for making it adaptive because of its potential multidimensionality. Similarly the Science test specifications required items dealing with concepts in Earth Science, Life Science, Chemistry and Physics. In addition the Science items were written to emphasize higher order thinking skills in each of these four knowledge domains. While the Science test item pool may not be unidimensional, it was designed by the test developers to deal with concepts which are familiar at all three grade levels, thus somewhat mitigating the need to make it grade level adaptive. While the Reading and Mathematics test item pools were also designed to measure higher order thinking skills in a number of content areas, past experience suggests that their respective item pools will be reasonably unidimensional and thus amenable to building adaptive tests. The next section discusses pretest results that bear on the unidimensionality of the four test item pools.

3.3.5 Dimensionality of the Pretest Item Pools

Factor analysis has been the traditional method for analyzing the dimensionality of item pools. However, it is becoming more apparent that in the case of dichotomous item data linear factor analysis of Pearson (phi) correlations does not, in general, yield the correct number of factors (see, e.g., Carroll, 1983; Hulin, Drasgow, & Parsons, 1983; Mislevy, 1986). Extra factors associated with item difficulties rather than content often appear. One alternative to estimating phi coefficients is to compute tetrachoric correlations, but when the items can be answered correctly through guessing, factor analysis of tetrachorics can also produce spurious factors (Hulin, Drasgow, and Parsons, 1983). Although Christofferson (1975) and Muthen (1978) have developed a generalized least squares method that is appropriate for tetrachoric correlations, it is limited to about 25 items due to heavy computational requirements. In general there is no uniformly accepted statistical procedure for this problem.

Fortunately recent simulation work by Zwick (1987) using NAEP reading data casts some light on the problem. Zwick simulated a one dimensional item pool using IRT procedures. She then used principal components to factor the matrix of Pearson (phi) correlations as well as two other more sophisticated methods. The other two methods, full-information factor analysis (Bock, Gibbons, & Muraki, 1985) and a contingency table approach due to Rosenbaum (1984), potentially provide solutions to this problem; but like Muthen's approach, there remain some unresolved computational problems.

Zwick used the ratio of the first latent root to the second latent root in the principal components analysis and found that this ratio was always greater than four in all the simulations based on unidimensional item data. The more sophisticated procedures verified the unidimensionality of the item pool. The ratio of the largest latent root to the next largest root has a certain intuitive appeal since IRT scaling procedures only assume a preponderant first factor rather than perfect unidimensionality. In sum, if this ratio is greater than four there is some evidence for sufficient unidimensionality for scaling using IRT procedures. Unfortunately if the ratio is less than four in a principal component solution, it does not necessarily mean that the pool is not unidimensional. For example, a content-homogeneous item pool could have a bimodal item difficulty distribution and thus yield two equal sized factors.

Our approach to this problem is to use the latent root ratio criterion as evidence in support or against the unidimensionality assumption. If a test item pool fails the ratio criterion, then preliminary IRT estimation will still be carried out to investigate the possibility that the failure was primarily due to clusters of items at multiple difficulty levels.

Table 3-38 presents the latent root ratios by test and grade level. It also shows that the ratios of the latent roots for Reading and Mathematics all meet the criterion of four or more. Neither Science nor Social Studies meet the criterion. Since Science and Social Studies would appear to be multi-dimensional 2, 3, and 4 factors were extracted and rotated using Varimax. Inspection of the rotated loadings indicated that salient loadings on a given factor shared little in common from a content or process viewpoint. See List of Appendices for a presentation of the rotated factor loadings for the Science and Social Studies four-factor solutions for the total sample.

Since no readily interpretable factors appeared in either analysis, the hypothesis that the multidimensionality was primarily the result of difficulty artifacts could not be rejected. Since difficulty clusters would not affect the estimation of IRT parameters it was decided to proceed with a preliminary IRT estimation. At this point the IRT estimation is more for confirmation of the unidimensionality or lack thereof as well as to yield additional information on the item characteristics. If the following item analysis results suggest that floor and ceiling effects are not a factor in the Science and Social Studies test, then there would be no compelling reason to IRT scale them since they need not be grade adaptive. It was originally felt by the test construction committees involved that both test item pools were constructed such that a single form could be developed and used at all grade levels. Whether or not this is the case is investigated in the next section.

TABLE 3-38

THE LATENT ROOTS OF THE TWO LARGEST FACTORS AND THEIR RATIOS BY GRADE AND TESTED AREA

Cognitive Area	Grade 8			Grade 10			Grade 12			
	Root	Percent of Variance	Ratio Δ_1/Δ_2	Root	Percent of Variance	Ratio Δ_1/Δ_2	Root	Percent of Variance	Ratio Δ_1/Δ_2	R
Reading Δ_1	9.3	18.5	5.9	10.5	21.1	5.3	11.5	23.0	5.8	1
Δ_2	1.6	21.7		2.0	25.0		2.0	27.0		
Math Δ_1	11.2	13.7	4.7	14.9	18.1	5.5	16.8	20.5	5.6	1
Math Δ_2	2.4	16.5		2.7	21.5		3.0	24.2		
Science Δ_1	3.7	8.8	2.3	5.4	12.9	3.4	5.1	12.1	3.0	
Science Δ_2	1.6	12.5		1.6	16.8		1.7	16.2		
History Δ_1	7.8	13.1	3.1	7.8	13.1	3.3	10.4	17.3	3.7	
History Δ_2	2.5	17.2		2.4	17.2		2.8	22.0		

3.3.6 Item and Test Analysis

Tables 3-39 to 3-42 present the item statistics as well as summary statistics for the total item pool for each test.

The proportion correct columns show the percentage of students at each grade level who selected the correct answer. These percentages reflect the difficulty of the item for examinees at each grade level. Items with difficulty indices (percent correct responses) between 45 and 65 would be considered to be about the appropriate difficulty for the majority of the individuals in a given sample. The R-biserial columns show how well each item discriminates the high scoring examinees from the low scoring examinees. An item is considered to be a "good" item if those examinees who got it correct had high scores on the total item pool while those who got it wrong would be expected to achieve low scores on the total item pool.

The IRT parameters also furnish information about the item difficulties and level of discrimination. The A parameter is the item discrimination parameter and thus can be considered analogous to the biserial except it is on a different scale. Values for the A parameter between .5 to 1.0 are considered reasonably discriminating. Above 1. is considered a very discriminating item. The difficulty parameter, B, tends to run from -3. to +3. with larger values indicating harder items. The B parameter is on the same scale as the examinees' ability scores, and corresponds to the ability level at which 50% of examinees answer the item correctly. The ability levels (thetas) have a mean of 0 and a standard deviation of 1 in the calibration sample. The C parameter is the guessing parameter and it estimates the probability that a person very low on the measured ability will get the item correct. A more complete and somewhat more technical discussion of the IRT model can be found in the article (See List of Appendices).

The last three or four columns (depending on the test) of each table present information on where the item came from, i.e., source, content, and the cognitive skill or process assumed to be required to solve the item. These categorizations reflect the original test specifications and the judgments of the subject matter specialist who selected and or wrote the items.

The column labeled "Gain" is of particular interest since it reflects the expected amount of gain or improvement in the knowledge measured by a given item as one goes from the 8th to the 12th grade. Other things being equal, those items that show relatively large gains can be considered to be more sensitive to the growth taking place during these years of schooling. "Other things being equal" refers to the fact that other item characteristics also have to be taken into consideration before the final forms are selected. In addition to having the potential for showing growth, the final items must reflect to a certain extent the content and process specifications, possess relatively high reliability (as indicated by the biserial or A parameter), span the difficulty range so that floor and ceiling effects are minimized, and ideally, contain enough HS&B items to allow for comparisons with earlier cohorts.

TABLE 3-39

ITEM STATISTICS: READING TEST

	PROPORTION CORRECT					R-BISERIAL				PRELIMINARY IRT PARAMETERS			SOURCE	TYPE	CONTENT	PURPOSE
GRADE:	8	10	12	TOTAL	GAIN	8	10	12	TOTAL	A	B	C				
N:	700	470	429	1599	12-8											
ITEM 1	0.95	0.95	0.96	0.95	0.01	0.52	0.57	0.49	0.51	0.51	-4.80	0.12	NAEP-R	NARR	FOLKTALE	UNDASSUM
ITEM 2	0.63	0.88	0.89	0.86	0.06	0.57	0.54	0.68	0.60	0.78	-1.89	0.12	NELS88	NARR	FOLKTALE	UNDASSUM
ITEM 3	0.82	0.86	0.89	0.85	0.06	0.53	0.67	0.61	0.59	0.77	-1.81	0.12	NAEP-R	NARR	FOLKTALE	LOG CONC
ITEM 4	0.57	0.71	0.80	0.67	0.23	0.58	0.66	0.60	0.64	0.98	-0.49	0.14	NELS88	NARR	FOLKTALE	LOG CONC
ITEM 5	0.53	0.69	0.73	0.63	0.20	0.54	0.52	0.56	0.57	1.24	0.03	0.28	NELS88	NARR	FOLKTALE	EXT IDEA
ITEM 6	0.41	0.52	0.60	0.49	0.19	0.31	0.46	0.47	0.43	0.77	0.57	0.22	HSB	EXPOS	LIT	PURPOSE
ITEM 7	0.37	0.41	0.45	0.40	0.08	0.32	0.53	0.41	0.41	1.10	0.99	0.23	HSB	EXPOS	LIT	UNDASSUM
ITEM 8	0.29	0.45	0.58	0.42	0.29	0.39	0.49	0.57	0.52	1.64	0.73	0.21	HSB	EXPOS	LIT	LOG CONC
ITEM 9	0.34	0.55	0.62	0.48	0.28	0.69	0.61	0.60	0.67	1.24	0.24	0.09	NELS88	EXPOS	LIT	SEQUENCE
ITEM 10	0.38	0.50	0.55	0.46	0.17	0.32	0.42	0.47	0.43	1.21	0.82	0.28	HSB	EXPOS	SOC STUD	UNDASSUM
ITEM 11	0.62	0.68	0.79	0.68	0.17	0.67	0.64	0.61	0.66	0.92	-0.63	0.12	HSB	EXPOS	SOC STUD	MAINIDEA
ITEM 12	0.36	0.48	0.60	0.46	0.23	0.58	0.61	0.50	0.60	1.61	0.50	0.19	HSB	EXPOS	SOC STUD	LOG CONC
ITEM 13	0.23	0.21	0.22	0.22	-0.01	-0.09	0.03	0.08	-0.02	---NOT ESTIMATED----			NELS88	EXPOS	SOC STUD	TECHNIQ
ITEM 14	0.44	0.58	0.68	0.55	0.23	0.51	0.59	0.58	0.58	1.40	0.28	0.24	NELS88	EXPOS	SOC STUD	EXT IDEA
ITEM 15	0.30	0.40	0.42	0.36	0.12	0.33	0.40	0.42	0.40	1.75	1.02	0.22	HSB	EXPOS	SCIENCE	MAINIDEA
ITEM 16	0.62	0.74	0.77	0.70	0.15	0.57	0.74	0.66	0.65	1.00	-0.63	0.12	NELS88	EXPOS	SCIENCE	FIG LANG
ITEM 17	0.43	0.50	0.55	0.48	0.13	0.59	0.48	0.54	0.55	1.16	0.45	0.19	HSB	EXPOS	SCIENCE	ATTITUDE
ITEM 18	0.55	0.67	0.71	0.63	0.16	0.61	0.67	0.58	0.63	1.12	-0.19	0.18	NELS88	EXPOS	SCIENCE	SEQUENCE
ITEM 19	0.63	0.69	0.71	0.67	0.09	0.58	0.60	0.71	0.62	0.89	-0.45	0.20	3IBR	POETRY		MAINIDEA
ITEM 20	0.58	0.67	0.70	0.64	0.12	0.48	0.54	0.48	0.51	0.99	0.04	0.30	3IBR	POETRY		REL IDEA
ITEM 21	0.47	0.58	0.60	0.54	0.13	0.43	0.45	0.53	0.48	0.61	0.06	0.12	3IBR-R	POETRY		LANGUAGE
ITEM 22	0.54	0.66	0.67	0.61	0.13	0.54	0.58	0.59	0.58	0.97	-0.07	0.21	3IBR-R	POETRY		LOG CONC
ITEM 23	0.70	0.77	0.77	0.74	0.07	0.58	0.64	0.64	0.61	0.95	-0.72	0.20	3IBR-R	POETRY		LOG CONC
ITEM 24	0.65	0.80	0.80	0.73	0.16	0.65	0.70	0.81	0.71	1.15	-0.79	0.11	3IBR	POETRY		TONE
ITEM 25	0.38	0.50	0.55	0.46	0.17	0.40	0.58	0.60	0.53	1.45	0.62	0.23	3IBR	POETRY		FIG LANG
ITEM 26	0.49	0.63	0.63	0.57	0.14	0.38	0.54	0.58	0.50	1.72	0.47	0.35	3IBR	POETRY		FIG LANG
ITEM 27	0.25	0.24	0.28	0.26	0.03	-0.18	0.04	0.15	-0.01	---NOT ESTIMATED----			NELS88	POETRY		LANGUAGE
ITEM 28	0.48	0.62	0.68	0.57	0.21	0.54	0.62	0.78	0.65	1.75	0.17	0.24	NELS88	POETRY		FIG LANG
ITEM 29	0.40	0.47	0.54	0.46	0.14	0.48	0.45	0.66	0.53	1.19	0.58	0.20	3IBR	POETRY		LANGUAGE
ITEM 30	0.41	0.56	0.68	0.53	0.27	0.58	0.68	0.82	0.70	1.49	0.12	0.13	3IBR	NARR	BIOG	PURPOSE
ITEM 31	0.73	0.82	0.82	0.78	0.10	0.59	0.79	0.84	0.71	1.46	-0.72	0.27	3IBR	NARR	BIOG	LANGUAGE
ITEM 32	0.48	0.59	0.69	0.57	0.21	0.53	0.76	0.63	0.65	1.75	0.21	0.24	3IBR	NARR	BIOG	TONE
ITEM 33	0.52	0.63	0.67	0.59	0.15	0.45	0.46	0.48	0.48	0.93	0.23	0.29	3IBR	NARR	BIOG	EXT IDEA
ITEM 34	0.68	0.73	0.75	0.72	0.07	0.42	0.37	0.50	0.43	0.49	-0.97	0.20	3IBR	EXPOS	SOC STUD	UNDASSUM
ITEM 35	0.63	0.78	0.79	0.72	0.16	0.64	0.72	0.68	0.69	1.34	-0.47	0.24	NELS88	EXPOS	SOC STUD	PURPOSE
ITEM 36	0.66	0.79	0.81	0.74	0.15	0.58	0.72	0.83	0.69	1.15	-0.69	0.18	3IBR	EXPOS	SOC STUD	TONE
ITEM 37	0.58	0.67	0.72	0.64	0.14	0.45	0.56	0.63	0.54	1.44	0.15	0.36	NELS88	EXPOS	SOC STUD	ATTITUDE
ITEM 38	0.60	0.75	0.76	0.68	0.16	0.65	0.68	0.67	0.68	1.04	-0.60	0.12	3IBR	PERS.	LETTER	PT VIEW
ITEM 39	0.74	0.75	0.83	0.77	0.10	0.48	0.60	0.62	0.55	0.79	-0.99	0.20	3IBR	PERS.	LETTER	FIG LANG
ITEM 40	0.54	0.60	0.68	0.60	0.14	0.45	0.55	0.58	0.53	1.04	0.14	0.27	3IBR	PERS.	LETTER	TECHNIQ

TABLE 3-39 (CON'T)

ITEM STATISTICS: READING TEST

	PROPORTION CORRECT					R-BISERIAL				PRELIMINARY IRT PARAMETERS			SOURCE	TYPE	CONTENT	PURPOSE
GRADE:	8	10	12	TOTAL	GAIN	8	10	12	TOTAL	A	B	C				
N:	700	470	429	1599	12-8											
ITEM 41	0.44	0.53	0.62	0.52	0.18	0.52	0.60	0.58	0.58	1.31	0.35	0.21	3IBR	PERS.	LETTER	LANGUAGE
ITEM 42	0.48	0.59	0.65	0.56	0.17	0.56	0.46	0.63	0.57	0.79	-0.06	0.12	3IBR	PERS.	LETTER	REL IDEA
ITEM 43	0.45	0.53	0.55	0.50	0.10	0.38	0.34	0.31	0.37	0.52	0.61	0.20	3IBR	PERS.	LETTER	EXT IDEA
ITEM 44	0.67	0.79	0.80	0.74	0.13	0.55	0.66	0.67	0.63	1.51	-0.34	0.36	3IBR	PERS.	LETTER	REL IDEA
ITEM 45	0.59	0.67	0.73	0.65	0.14	0.51	0.45	0.74	0.56	0.82	-0.34	0.20	3IBR	PERS.	LETTER	FIG LANG
ITEM 46	0.22	0.27	0.30	0.26	0.09	0.46	0.46	0.40	0.45	1.09	1.28	0.11	3CBR	EXPOS	SCIENCE	UNDASSUM
ITEM 47	0.42	0.51	0.52	0.47	0.10	0.49	0.35	0.51	0.46	0.85	0.56	0.20	3CBR	EXPOS	SCIENCE	FIG LANG
ITEM 48	0.52	0.59	0.64	0.57	0.12	0.53	0.55	0.61	0.56	1.00	0.09	0.22	3CBR	EXPOS	SCIENCE	ATTITUDE
ITEM 49	0.34	0.44	0.53	0.42	0.20	0.46	0.45	0.51	0.50	1.26	0.73	0.20	3CBR	EXPOS	SCIENCE	ATTITUDE
ITEM 50	0.47	0.58	0.67	0.56	0.19	0.52	0.67	0.70	0.63	1.73	0.22	0.24	3CBR	EXPOS	SCIENCE	FIG LANG
COL MEAN	0.52	0.61	0.66	0.58	0.14	0.48	0.55	0.58	0.54							
COL S.D.	0.16	0.16	0.15	0.15	0.06	0.16	0.15	0.15	0.14							
TEST MEAN	25.79	30.56	32.96	29.12	7.17											
TEST S.D.	9.88	10.32	10.37	10.60												
ALPHA	0.90	0.92	0.92	0.92												

ABBREVIATIONS:

UNDASSUM = UNDERLYING ASSUMPTION/MOTIVE
LOG CONC = LOGICAL CONCLUSION
EXT IDEA = EXTENSION OF IDEAS
PURPOSE = AUTHOR'S PURPOSE

SEQUENCE = SEQUENCE/CHRONOLOGY
MAINIDEA = MAIN IDEA/THEME
TECHNIQ. = AUTHOR'S TECHNIQUE
FIG LANG = FIGURATIVE LANGUAGE

ATTITUDE = AUTHOR'S ATTITUDE
REL IDEA = RELATIONSHIP BETWEEN IDEAS
LANGUAGE = USE OF LANGUAGE
PT VIEW = AUTHOR'S POINT OF VIEW

TABLE 3-40

ITEM STATISTICS: MATHEMATICS TEST

	PROPORTION CORRECT					R-BISERIAL				PRELIMINARY IRT PARAMETERS			SOURCE	CONTENT	PROCESS
GRADE:	8	10	12	TOTAL	GAIN	8	10	12	TOTAL	A	B	C			
N:	667	599	546	1812	12-8										
ITEM 1	0.48	0.75	0.87	0.69	0.39	0.46	0.69	0.67	0.66	2.07	-0.11	0.33	HSB	ARITH	SKL,KNOW
ITEM 2	0.46	0.72	0.80	0.65	0.34	0.52	0.64	0.72	0.67	1.81	-0.08	0.26	HSB	ALGEBRA	UND COMP
ITEM 3	0.33	0.47	0.54	0.44	0.20	0.33	0.50	0.63	0.53	1.62	0.72	0.25	HSB	ALGEBRA	UND COMP
ITEM 4	0.34	0.59	0.69	0.53	0.35	0.40	0.57	0.64	0.61	1.38	0.27	0.21	HSB	ARITH	SKL,KNOW
ITEM 5	0.60	0.83	0.89	0.77	0.28	0.50	0.71	0.78	0.68	1.96	-0.52	0.30	HSB	ALGEBRA	UND COMP
ITEM 6	0.36	0.43	0.54	0.44	0.18	0.34	0.48	0.47	0.46	1.03	0.79	0.23	HSB	ARITH	PROBSOLV
ITEM 7	0.41	0.64	0.73	0.58	0.31	0.61	0.69	0.75	0.72	1.58	-0.08	0.13	HSB	ALGEBRA	UND COMP
ITEM 8	0.32	0.56	0.74	0.53	0.42	0.53	0.65	0.66	0.69	1.33	0.09	0.12	HSB	ARITH	SKL,KNOW
ITEM 9	0.45	0.59	0.71	0.57	0.25	0.53	0.57	0.53	0.58	1.06	0.08	0.20	HSB	DATA REP	UND COMP
ITEM 10	0.49	0.61	0.65	0.58	0.17	0.26	0.39	0.48	0.41	1.26	0.62	0.40	HSB	DATA REP	SKL,KNOW
ITEM 11	0.47	0.61	0.68	0.58	0.21	0.50	0.49	0.64	0.57	1.08	0.07	0.21	HSB	ARITH	SKL,KNOW
ITEM 12	0.31	0.56	0.63	0.49	0.32	0.37	0.41	0.46	0.50	1.43	0.65	0.28	HSB	ARITH	UND COMP
ITEM 13	0.34	0.39	0.49	0.40	0.15	0.45	0.31	0.39	0.40	0.64	0.95	0.16	HSB	ALGEBRA	PROBSOLV
ITEM 14	0.46	0.65	0.73	0.61	0.26	0.50	0.65	0.66	0.64	1.40	-0.03	0.22	HSB	ARITH	SKL,KNOW
ITEM 15	0.34	0.51	0.67	0.50	0.33	0.56	0.62	0.67	0.67	1.35	0.23	0.13	HSB	ARITH	PROBSOLV
ITEM 16	0.41	0.56	0.64	0.53	0.23	0.46	0.51	0.63	0.56	1.71	0.47	0.29	HSB	GEOM,MES	SKL,KNOW
ITEM 17	0.33	0.48	0.58	0.46	0.25	0.61	0.63	0.63	0.65	1.15	0.30	0.09	HSB	ARITH	SKL,KNOW
ITEM 18	0.33	0.58	0.70	0.53	0.37	0.50	0.53	0.62	0.63	1.25	0.22	0.18	HSB	GEOM,MES	UND COMP
ITEM 19	0.22	0.20	0.32	0.24	0.10	0.07	0.44	0.32	0.29	1.38	1.60	0.16	HSB	GEOM,MES	UND COMP
ITEM 20	0.38	0.48	0.60	0.48	0.21	0.43	0.50	0.56	0.53	0.99	0.46	0.18	HSB	ARITH	PROBSOLV
ITEM 21	0.22	0.34	0.49	0.34	0.27	0.47	0.53	0.59	0.59	1.85	0.87	0.17	HSB	GEOM,MES	PROBSOLV
ITEM 22	0.47	0.66	0.77	0.62	0.30	0.66	0.67	0.71	0.71	1.62	-0.16	0.17	HSB	ALGEBRA	UND COMP
ITEM 23	0.24	0.30	0.38	0.30	0.13	0.28	0.38	0.32	0.36	1.03	1.46	0.19	HSB	ALGEBRA	UND COMP
ITEM 24	0.19	0.20	0.22	0.20	0.03	-0.05	0.30	0.33	0.20	2.16	1.75	0.15	HSB	GEOM,MES	UND COMP
ITEM 25	0.83	0.93	0.93	0.89	0.10	0.51	0.57	0.63	0.57	0.91	-2.09	0.19	NAEP	HOTS	PROBSOLV
ITEM 26	0.69	0.76	0.82	0.75	0.12	0.25	0.20	0.26	0.28	0.26	-2.35	0.19	NAEP	DATA INT	PROBSOLV
ITEM 27	0.44	0.55	0.62	0.53	0.18	0.45	0.48	0.51	0.50	0.70	0.10	0.14	NAEP	ARITH	PROBSOLV
ITEM 28	0.63	0.72	0.80	0.71	0.18	0.43	0.45	0.34	0.45	0.58	-0.85	0.19	NAEP	ARITH	PROBSOLV
ITEM 29	0.51	0.67	0.73	0.63	0.23	0.49	0.53	0.53	0.56	0.76	-0.44	0.10	NAEP	ADVANCED	PROBSOLV
ITEM 30	0.74	0.82	0.87	0.81	0.13	0.36	0.42	0.48	0.44	0.49	-1.84	0.19	NAEP	GEOM,MES	UND COMP
ITEM 31	0.30	0.60	0.65	0.51	0.35	0.46	0.62	0.68	0.66	1.35	0.25	0.18	NAEP	ALGEBRA	UND COMP
ITEM 32	0.63	0.79	0.86	0.75	0.23	0.56	0.58	0.57	0.61	1.04	-0.80	0.19	NAEP	ARITH	SKL,KNOW
ITEM 33	0.59	0.73	0.80	0.70	0.21	0.56	0.64	0.62	0.62	1.08	-0.53	0.19	NAEP	HOTS	PROBSOLV
ITEM 34	0.40	0.57	0.67	0.54	0.27	0.53	0.58	0.61	0.62	1.00	0.07	0.13	NAEP	DATA REP	SKL,KNOW
ITEM 35	0.65	0.75	0.78	0.72	0.13	0.41	0.55	0.46	0.48	0.68	-0.81	0.20	NAEP	DATA INT	UND COMP
ITEM 36	0.51	0.71	0.80	0.66	0.29	0.68	0.72	0.80	0.75	1.61	-0.41	0.11	NAEP	ALGEBRA	UND COMP
ITEM 37	0.44	0.50	0.56	0.50	0.12	0.38	0.51	0.38	0.43	0.67	0.54	0.21	NAEP	ADVANCED	PROBSOLV
ITEM 38	0.43	0.53	0.63	0.52	0.20	0.28	0.34	0.32	0.37	0.75	0.79	0.32	NAEP	ARITH	UND COMP
ITEM 39	0.85	0.93	0.93	0.90	0.08	0.47	0.55	0.58	0.53	0.70	-2.62	0.19	NAEP	GEOM,MES	SKL,KNOW
ITEM 40	0.48	0.64	0.76	0.61	0.28	0.58	0.63	0.56	0.63	1.08	-0.18	0.17	SIMS	ALGEBRA	UND COMP

TABLE 3-40 (CON'T)

ITEM STATISTICS: MATHEMATICS TEST

	PROPORTION CORRECT					R-BISERIAL				PRELIMINARY IRT PARAMETERS			SOURCE	CONTENT	PROCESS
GRADE:	8	10	12	TOTAL	GAIN	8	10	12	TOTAL	A	B	C			
N:	667	599	546	1812	12-8										
ITEM 41	0.56	0.69	0.72	0.65	0.16	0.52	0.49	0.53	0.53	0.87	-0.16	0.27	NAEP	DATA INT	UND COMP
ITEM 42	0.47	0.61	0.65	0.57	0.18	0.52	0.52	0.57	0.55	0.82	-0.09	0.14	NAEP	ARITH	PROBSOLV
ITEM 43	0.49	0.70	0.83	0.66	0.34	0.62	0.66	0.67	0.69	1.56	-0.25	0.22	NAEP	ARITH	UND COMP
ITEM 44	0.29	0.57	0.66	0.49	0.37	0.60	0.66	0.73	0.72	1.77	0.25	0.16	NAEP	ALGEBRA	PROBSOLV
ITEM 45	0.55	0.73	0.83	0.70	0.28	0.61	0.68	0.71	0.69	1.19	-0.66	0.08	NAEP	GEOM,MES	SKL,KNOW
ITEM 46	0.38	0.57	0.64	0.52	0.26	0.66	0.75	0.66	0.71	1.20	-0.02	0.06	NAEP	GEOM,MES	UND COMP
ITEM 47	0.25	0.73	0.77	0.57	0.52	0.56	0.72	0.79	0.76	1.59	-0.37	0.09	SIMS	ALGEBRA	SKL,KNOW
ITEM 48	0.46	0.74	0.80	0.65	0.35	0.50	0.63	0.63	0.65	1.21	-0.32	0.19	NAEP	ALGEBRA	SKL,KNOW
ITEM 49	0.26	0.28	0.44	0.32	0.18	0.28	0.41	0.45	0.42	1.67	1.26	0.22	NAEP	ALGEBRA	UND COMP
ITEM 50	0.27	0.31	0.40	0.32	0.14	0.26	0.53	0.53	0.46	2.25	1.16	0.24	NAEP	ADVANCED	UND COMP
ITEM 51	0.36	0.43	0.52	0.43	0.16	0.35	0.39	0.52	0.45	1.32	0.98	0.29	NAEP	GEOM,MES	UND COMP
ITEM 52	0.10	0.12	0.15	0.12	0.05	-0.09	0.31	0.36	0.24	1.78	2.13	0.11	NAEP	DATA REP	SKL,KNOW
ITEM 53	0.52	0.71	0.75	0.65	0.23	0.41	0.61	0.65	0.59	1.80	0.11	0.38	NAEP	ADVANCED	UND COMP
ITEM 54	0.48	0.56	0.61	0.55	0.13	0.45	0.49	0.59	0.51	1.64	0.57	0.36	NAEP	ARITH	UND COMP
ITEM 55	0.21	0.24	0.35	0.26	0.15	0.08	0.27	0.47	0.34	1.48	1.50	0.20	NAEP	ALGEBRA	UND COMP
ITEM 56	0.19	0.45	0.61	0.40	0.41	0.58	0.74	0.77	0.78	1.82	0.42	0.09	SIMS	ALGEBRA	UND COMP
ITEM 57	0.15	0.32	0.33	0.26	0.18	0.33	0.57	0.58	0.56	1.14	1.13	0.12	SIMS	ALGEBRA	UND COMP
ITEM 58	0.11	0.15	0.25	0.17	0.14	0.04	0.33	0.34	0.33	1.05	1.99	0.12	NAEP	DATA REP	SKL,KNOW
ITEM 59	0.23	0.23	0.27	0.24	0.04	0.08	0.27	0.31	0.22	1.96	1.81	0.20	NAEP	ALGEBRA	PROBSOLV
ITEM 60	0.40	0.59	0.71	0.55	0.31	0.55	0.62	0.61	0.64	1.44	0.14	0.22	NAEP	ARITH	UND COMP
ITEM 61	0.21	0.24	0.34	0.26	0.13	0.09	0.31	0.34	0.30	1.25	1.68	0.19	NAEP	ADVANCED	UND COMP
ITEM 62	0.31	0.37	0.41	0.36	0.10	0.29	0.45	0.45	0.40	0.97	1.20	0.22	NAEP	ALGEBRA	SKL,KNOW
ITEM 63	0.26	0.33	0.39	0.32	0.13	0.10	0.33	0.55	0.37	2.25	1.22	0.24	NAEP	GEOM,MES	PROBSOLV
ITEM 64	0.23	0.38	0.53	0.37	0.31	0.56	0.69	0.70	0.70	1.82	0.62	0.13	NAEP	GEOM,MES	UND COMP
ITEM 65	0.28	0.32	0.52	0.37	0.24	0.22	0.63	0.71	0.57	2.17	0.86	0.22	NAEP	ARITH	SKL,KNOW
ITEM 66	0.25	0.48	0.61	0.44	0.36	0.41	0.61	0.61	0.63	1.01	0.36	0.10	NAEP	GEOM,MES	PROBSOLV
ITEM 67	0.33	0.63	0.71	0.54	0.38	0.57	0.68	0.75	0.72	1.82	0.09	0.19	NAEP	ARITH	UND COMP
ITEM 68	0.50	0.66	0.74	0.63	0.24	0.46	0.53	0.72	0.60	1.94	0.22	0.40	NAEP	ARITH	UND COMP
ITEM 69	0.24	0.33	0.40	0.32	0.16	0.18	0.32	0.38	0.35	1.18	1.49	0.24	NAEP	DATA INT	PROBSOLV
ITEM 70	0.24	0.25	0.32	0.27	0.08	0.11	0.13	0.26	0.19	---NOT ESTIMATED----			NAEP	ALGEBRA	UND COMP
ITEM 71	0.21	0.41	0.57	0.38	0.36	0.28	0.59	0.80	0.66	1.83	0.64	0.17	NAEP	ADVANCED	UND COMP
ITEM 72	0.38	0.55	0.62	0.51	0.23	0.60	0.65	0.63	0.65	1.17	0.16	0.16	NAEP	GEOM,MES	PROBSOLV
ITEM 73	0.45	0.59	0.64	0.56	0.19	0.52	0.48	0.52	0.53	1.13	0.34	0.31	NAEP	ADVANCED	PROBSOLV
ITEM 74	0.22	0.40	0.50	0.36	0.27	0.32	0.55	0.62	0.58	1.24	0.82	0.18	NAEP	GEOM,MES	PROBSOLV
ITEM 75	0.25	0.54	0.66	0.47	0.40	0.60	0.72	0.78	0.76	2.25	0.29	0.16	NAEP	ARITH	UND COMP
ITEM 76	0.20	0.28	0.34	0.27	0.14	0.15	0.31	0.35	0.33	---NOT ESTIMATED----			NAEP	ARITH	PROBSOLV
ITEM 77	0.24	0.22	0.29	0.25	0.05	0.13	0.25	0.31	0.23	---NOT ESTIMATED----			NAEP	ALGEBRA	PROBSOLV
ITEM 78	0.28	0.45	0.57	0.42	0.29	0.38	0.55	0.59	0.57	1.50	0.68	0.24	NAEP	ADVANCED	UND COMP
ITEM 79	0.13	0.13	0.16	0.14	0.03	-0.15	0.20	0.27	0.12	0.91	2.69	0.13	NAEP	ALGEBRA	UND COMP
ITEM 80	0.32	0.43	0.55	0.43	0.23	0.14	0.30	0.48	0.38	0.90	1.04	0.31	NAEP	ADVANCED	SKL,KNOW

TABLE 3-40 (CON'T)

ITEM STATISTICS: MATHEMATICS TEST

	PROPORTION CORRECT					R-BISERIAL				PRELIMINARY IRT PARAMETERS			SOURCE	CONTENT	PROCESS
GRADE:	8	10	12	TOTAL	GAIN	8	10	12	TOTAL	A	B	C			
N:	667	599	546	1812	12-8										
ITEM 81	0.16	0.26	0.41	0.27	0.25	0.15	0.49	0.63	0.53	1.67	1.06	0.17	NAEP	ADVANCED	SKL,KNOW
ITEM 82	0.21	0.22	0.28	0.24	0.07	-0.02	0.15	0.39	0.20	2.08	1.62	0.21	NAEP	ADVANCED	UND COMP
COL MEAN	0.37	0.51	0.60	0.49	0.22	0.39	0.51	0.55	0.53						
COL S.D.	0.16	0.19	0.19	0.17	0.11	0.19	0.15	0.15	0.16						
TEST MEAN	30.73	42.12	49.11	40.03	18.38										
TEST S.D.	12.67	15.71	16.19	16.67											
ALPHA	0.90	0.94	0.95	0.95											

ABBREVIATIONS:

HSB = HIGH SCHOOL AND BEYOND
NAEP = NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS
SIMS = SECOND INTERNATIONAL MATHEMATICS STUDY

DATA REP = DATA REPRESENTATION, PROBABILITY
HOTS = HIGHER ORDER THINKING SKILLS
DATA INT = DATA INTERPRETATION, PROBABILITY
ADVANCED = ADVANCED TOPICS, LOGIC
GEOM,MES = GEOMETRY, MEASUREMENT

SKL,KNOW = SKILLS/KNOWLEDGE
UND COMP = UNDERSTANDING/COMPREHENSION
PROBSOLV = PROBLEM SOLVING

TABLE 3-41

ITEM STATISTICS: SOCIAL STUDIES TEST

	PROPORTION CORRECT					R-BISERIAL				PRELIMINARY IRT PARAMETERS			SOURCE	CONTENT
GRADE:	8	10	12	TOTAL	GAIN	8	10	12	TOTAL	A	B	C		
N:	669	769	699	2137	12-8									
ITEM 1	0.67	0.70	0.85	0.74	0.18	0.56	0.39	0.54	0.52	0.79	-0.69	0.24	NAEP	CIT/GOVT
ITEM 2	0.65	0.80	0.90	0.79	0.25	0.52	0.50	0.60	0.59	0.88	-0.95	0.24	NAEP	AM HIST
ITEM 3	0.49	0.66	0.66	0.61	0.17	0.40	0.51	0.60	0.52	0.99	0.04	0.24	NAEP	GEOG
ITEM 4	0.61	0.60	0.64	0.61	0.03	0.40	0.46	0.52	0.44	1.94	0.49	0.42	NELS88	ETHICS
ITEM 5	0.54	0.66	0.72	0.64	0.19	0.47	0.21	0.20	0.34	0.42	-0.28	0.24	NAEP	AM HIST
ITEM 6	0.49	0.47	0.81	0.59	0.32	0.50	0.51	0.74	0.61	1.84	0.17	0.27	NAEP	CIT/GOVT
ITEM 7	0.55	0.72	0.79	0.69	0.24	0.48	0.32	0.58	0.50	0.77	-0.43	0.24	NAEP	GEOG
ITEM 8	0.69	0.65	0.76	0.70	0.08	0.50	0.50	0.62	0.53	1.29	-0.02	0.40	NELS88	ETHICS
ITEM 9	0.40	0.44	0.60	0.48	0.19	0.41	0.55	0.56	0.53	1.53	0.51	0.22	NAEP	AM HIST
ITEM 10A	0.66	0.73	0.74	0.71	0.07	0.33	0.31	0.25	0.30	0.34	-0.98	0.24	NAEP	CITIZEN
ITEM 10B	0.76	0.81	0.83	0.80	0.07	0.38	0.21	0.26	0.30	0.30	-2.28	0.24	NAEP	CITIZEN
ITEM 11	0.29	0.15	0.26	0.23	-0.03	0.32	0.28	0.48	0.32	1.32	1.52	0.14	NELS88	ETHICS
ITEM 12	0.72	0.83	0.90	0.82	0.18	0.59	0.62	0.73	0.67	1.26	-0.98	0.24	NAEP	AM HIST
ITEM 13	0.51	0.54	0.65	0.57	0.14	0.41	0.34	0.46	0.42	1.16	0.56	0.36	NAEP	CIT/GOVT
ITEM 14A	0.69	0.77	0.80	0.76	0.11	0.18	0.20	0.21	0.23	0.23	-2.30	0.24	NAEP	GEOG
ITEM 14B	0.63	0.67	0.68	0.66	0.05	0.40	0.45	0.39	0.40	0.51	-0.41	0.24	NAEP	GEOG
ITEM 15	0.53	0.72	0.88	0.71	0.34	0.43	0.61	0.76	0.64	1.74	-0.20	0.34	NELS88	ETHICS
ITEM 16	0.41	0.66	0.70	0.59	0.29	0.31	0.54	0.60	0.53	1.02	0.07	0.22	NAEP	AM HIST
ITEM 17A	0.46	0.49	0.69	0.55	0.22	0.57	0.51	0.64	0.60	1.44	0.25	0.22	NAEP	CIT/GOVT
ITEM 17B	0.37	0.36	0.64	0.46	0.27	0.43	0.33	0.54	0.49	2.25	0.71	0.28	NAEP	CIT/GOVT
ITEM 18	0.47	0.41	0.52	0.47	0.06	0.57	0.48	0.54	0.51	1.05	0.54	0.21	NAEP	AM HIST
ITEM 19	0.36	0.44	0.63	0.48	0.26	0.30	0.50	0.51	0.50	1.27	0.56	0.22	NELS88	ETHICS
ITEM 20	0.32	0.30	0.41	0.35	0.09	-0.03	0.12	0.31	0.17	1.69	1.54	0.29	NAEP	AM HIST
ITEM 21	0.42	0.50	0.71	0.54	0.29	0.37	0.27	0.51	0.45	1.50	0.57	0.34	NAEP	CIT/GOVT
ITEM 22	0.80	0.90	0.92	0.87	0.12	0.57	0.67	0.84	0.68	1.19	-1.38	0.24	NAEP	GEOG
ITEM 23	0.77	0.79	0.90	0.82	0.13	0.58	0.58	0.63	0.61	0.97	-1.10	0.24	NELS88	ETHICS
ITEM 24	0.52	0.71	0.76	0.67	0.24	0.50	0.50	0.63	0.58	0.74	-0.69	0.06	NAEP	AM HIST
ITEM 25	0.78	0.91	0.95	0.88	0.17	0.63	0.72	1.00	0.76	1.76	-1.25	0.24	NAEP	CIT/GOVT
ITEM 26	0.73	0.85	0.90	0.83	0.17	0.44	0.55	0.60	0.56	0.80	-1.27	0.24	NAEP	GEOG
ITEM 27	0.45	0.40	0.64	0.49	0.18	0.44	0.31	0.55	0.46	1.22	0.63	0.27	NELS88	ETHICS
ITEM 28	0.32	0.54	0.72	0.53	0.41	0.22	0.37	0.50	0.47	0.93	0.37	0.23	NAEP	AM HIST
ITEM 29	0.29	0.29	0.50	0.36	0.20	0.34	0.41	0.54	0.48	2.25	0.86	0.19	HSB	CIT/GOVT
ITEM 30	0.74	0.89	0.94	0.86	0.20	0.50	0.57	0.87	0.65	1.04	-1.37	0.24	NAEP	AM HIST
ITEM 31	0.33	0.32	0.54	0.40	0.21	0.25	0.25	0.47	0.39	2.25	1.04	0.28	NELS88	ETHICS
ITEM 32	0.30	0.43	0.63	0.45	0.33	0.36	0.46	0.58	0.54	1.50	0.55	0.20	NAEP	AM HIST
ITEM 33A	0.82	0.90	0.94	0.89	0.12	0.65	0.70	0.70	0.70	0.86	-1.96	0.24	NAEP	CIT/GOVT
ITEM 33B	0.71	0.83	0.88	0.81	0.17	0.47	0.50	0.65	0.56	0.66	-1.41	0.24	NAEP	CIT/GOVT
ITEM 33C	0.83	0.92	0.94	0.90	0.11	0.76	0.80	0.90	0.80	1.34	-1.72	0.24	NAEP	CIT/GOVT
ITEM 33D	0.51	0.56	0.66	0.57	0.15	0.22	0.28	0.29	0.30	0.32	0.28	0.24	NAEP	CIT/GOVT
ITEM 33E	0.81	0.89	0.94	0.88	0.13	0.65	0.71	0.85	0.73	1.00	-1.75	0.24	NAEP	CIT/GOVT

TABLE 3-41 (CON'T)

ITEM STATISTICS: SOCIAL STUDIES TEST

	PROPORTION CORRECT					R-BISERIAL				PRELIMINARY IRT PARAMETERS			SOURCE	CONTENT
GRADE:	8	10	12	TOTAL	GAIN	8	10	12	TOTAL	A	B	C		
N:	669	769	699	2137	12-8									
ITEM 33F	0.80	0.85	0.87	0.84	0.07	0.59	0.44	0.39	0.48	0.48	-2.19	0.24	NAEP	CIT/GOVT
ITEM 33G	0.84	0.92	0.94	0.90	0.10	0.76	0.75	0.89	0.79	1.29	-1.80	0.24	NAEP	CIT/GOVT
ITEM 33H	0.65	0.71	0.72	0.69	0.07	0.43	0.40	0.35	0.39	0.39	-0.89	0.24	NAEP	CIT/GOVT
ITEM 34	0.39	0.49	0.51	0.47	0.12	0.35	0.47	0.42	0.42	0.77	0.70	0.21	NELS88	ETHICS
ITEM 35	0.35	0.28	0.44	0.35	0.09	0.21	-0.07	0.19	0.15	2.25	1.96	0.34	NAEP	AM HIST
ITEM 36	0.58	0.78	0.88	0.75	0.31	0.65	0.68	0.81	0.74	1.74	-0.56	0.23	NAEP	CIT/GOVT
ITEM 37	0.40	0.48	0.54	0.47	0.14	0.34	0.36	0.47	0.41	0.89	0.76	0.25	NELS88	ETHICS
ITEM 38	0.57	0.71	0.82	0.70	0.25	0.53	0.65	0.79	0.68	1.67	-0.28	0.29	NAEP	AM HIST
ITEM 39	0.58	0.75	0.84	0.72	0.26	0.46	0.60	0.76	0.63	1.30	-0.42	0.28	NAEP	AM HIST
ITEM 40	0.47	0.56	0.81	0.61	0.34	0.50	0.52	0.76	0.63	1.40	-0.04	0.22	HSB	CIT/GOVT
ITEM 41	0.20	0.35	0.51	0.36	0.31	0.20	0.37	0.51	0.46	1.06	0.93	0.15	NELS88	ETHICS
ITEM 42	0.37	0.53	0.74	0.55	0.38	0.38	0.36	0.46	0.49	0.77	0.13	0.18	NAEP	AM HIST
ITEM 43	0.48	0.56	0.67	0.57	0.19	0.51	0.57	0.65	0.60	1.97	0.22	0.26	NAEP	AM HIST
ITEM 44	0.58	0.71	0.77	0.69	0.19	0.50	0.52	0.56	0.55	0.74	-0.67	0.15	NELS88	ETHICS
ITEM 45	0.19	0.20	0.25	0.21	0.06	0.02	0.08	0.32	0.17	1.88	1.95	0.19	NAEP	AM HIST
ITEM 46	0.39	0.47	0.53	0.46	0.14	0.24	0.19	0.25	0.26	0.31	0.98	0.15	NAEP	AM HIST
ITEM 47	0.44	0.52	0.65	0.54	0.21	0.44	0.55	0.61	0.57	1.18	0.20	0.19	NAEP	AM HIST
ITEM 48	0.36	0.44	0.55	0.45	0.19	0.18	0.41	0.56	0.43	1.75	0.84	0.30	NAEP	AM HIST
ITEM 49	0.33	0.42	0.56	0.44	0.23	0.03	0.12	0.29	0.23	0.27	1.38	0.15	NAEP	AM HIST
ITEM 50	0.36	0.44	0.60	0.47	0.24	0.25	0.41	0.64	0.48	1.81	0.73	0.30	NAEP	AM HIST
COL MEAN	0.53	0.61	0.71	0.62	0.18	0.42	0.44	0.56	0.50					
COL S.D.	0.17	0.20	0.17	0.18	0.09	0.17	0.18	0.19	0.15					
TEST MEAN	31.69	36.35	42.71	36.97	11.02									
TEST S.D.	10.00	9.50	10.20	10.84										
ALPHA	0.88	0.88	0.91	0.91										

ABBREVIATIONS:

HSB = HIGH SCHOOL AND BEYOND
NAEP = NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS
NELS88 = NEW ITEMS FOR NELS88

CIT/GOVT = CITIZENSHIP/GOVERNMENT
AM HIST = AMERICAN HISTORY
GEOG = GEOGRAPHY
CITIZEN = CITIZENSHIP

TABLE 3-42

ITEM STATISTICS: SCIENCE TEST

	PROPORTION CORRECT					R-BISERIAL				PRELIMINARY IRT PARAMETERS			SOURCE	CONTENT		
GRADE:	8	10	12	TOTAL	GAIN	8	10	12	TOTAL	A	B	C				
N:	697	473	424	1594	12-8											
ITEM 1	0.35	0.38	0.42	0.38	0.07	0.22	0.25	0.38	0.28	0.93	1.45	0.27	NELS88	LIFE SCI		
ITEM 2	0.80	0.84	0.86	0.83	0.06	0.31	0.49	0.37	0.39	0.54	-2.09	0.13	HSB	EARTH		
ITEM 3	0.39	0.50	0.58	0.47	0.19	0.32	0.40	0.54	0.45	0.88	0.51	0.20	NAEP	PHYS SCI		
ITEM 4	0.38	0.53	0.56	0.48	0.18	0.42	0.48	0.57	0.51	1.22	0.43	0.18	NAEP	PHYS SCI	PHYSICS	
ITEM 5	0.43	0.61	0.64	0.54	0.21	0.35	0.35	0.23	0.36	0.55	0.24	0.20	NAEP	LIFE SCI		
ITEM 6	0.55	0.67	0.66	0.61	0.12	0.35	0.44	0.43	0.42	0.73	-0.15	0.20	NAEP	EARTH		
ITEM 7	0.17	0.15	0.16	0.16	-0.01	-0.06	0.07	0.20	0.04	2.12	2.28	0.16	NAEP	PHYS SCI	CHEM	
ITEM 8	0.67	0.68	0.70	0.68	0.03	0.20	0.20	0.28	0.22	0.27	-1.14	0.20	NAEP	LIFE SCI		
ITEM 9	0.56	0.65	0.67	0.61	0.10	0.31	0.37	0.37	0.35	0.51	-0.26	0.20	NAEP	PHYS SCI	PHYSICS	
ITEM 10	0.57	0.71	0.75	0.66	0.18	0.38	0.38	0.36	0.42	0.66	-0.47	0.20	NAEP	EARTH	TECH&SOC	
ITEM 11	0.43	0.50	0.55	0.48	0.13	0.33	0.48	0.49	0.44	0.92	0.48	0.20	NAEP	LIFE SCI	QUANT	GRAPH
ITEM 12	0.64	0.71	0.73	0.69	0.09	0.30	0.42	0.53	0.41	0.69	-0.60	0.20	NAEP	PHYS SCI	CHEM	
ITEM 13	0.33	0.36	0.33	0.34	-0.00	0.23	0.35	0.29	0.27	1.31	1.43	0.26	NAEP	EARTH		
ITEM 14	0.62	0.69	0.75	0.68	0.12	0.17	0.27	0.31	0.27	0.31	-1.27	0.13	HSB	LIFE SCI		
ITEM 15	0.21	0.15	0.17	0.18	-0.04	-0.15	-0.13	0.06	-0.11	---NOT ESTIMATED----			NAEP	PHYS SCI	PHYSICS	
ITEM 16	0.42	0.56	0.54	0.49	0.12	0.37	0.62	0.49	0.50	1.35	0.41	0.21	NAEP	EARTH		
ITEM 17	0.41	0.61	0.63	0.53	0.22	0.40	0.58	0.47	0.52	1.33	0.29	0.22	NAEP	LIFE SCI	ECOLOGY	
ITEM 18	0.42	0.56	0.61	0.51	0.19	0.38	0.50	0.44	0.47	1.21	0.42	0.24	HSB	PHYS SCI	PHYSICS	
ITEM 19	0.47	0.55	0.49	0.50	0.02	0.24	0.17	0.19	0.21	0.33	0.85	0.20	NAEP	EARTH		
ITEM 20	0.48	0.53	0.61	0.53	0.14	0.20	0.33	0.45	0.33	1.37	0.81	0.38	NAEP	PHYS SCI	PHYSICS	
ITEM 21	0.34	0.46	0.51	0.42	0.17	0.15	0.42	0.24	0.31	0.80	1.14	0.26	NAEP	LIFE SCI	ECOLOGY	
ITEM 22	0.48	0.68	0.75	0.62	0.27	0.46	0.64	0.68	0.61	1.75	-0.19	0.15	HSB	PHYS SCI	CHEM	
ITEM 23	0.45	0.51	0.62	0.51	0.17	0.35	0.41	0.42	0.41	0.58	0.08	0.09	NAEP	LIFE SCI	ECOLOGY	TECH&SO
ITEM 24	0.16	0.19	0.23	0.19	0.07	0.18	0.28	0.32	0.27	0.59	2.26	0.08	NAEP	EARTH		
ITEM 25	0.41	0.52	0.50	0.46	0.09	0.13	0.33	0.34	0.28	1.43	1.21	0.37	NAEP	PHYS SCI	CHEM	
ITEM 26	0.22	0.32	0.37	0.29	0.15	0.14	0.34	0.45	0.35	1.34	1.33	0.19	NAEP	PHYS SCI	PHYSICS	
ITEM 27	0.45	0.59	0.54	0.51	0.09	0.29	0.50	0.44	0.42	0.83	0.39	0.22	NAEP	LIFE SCI	ECOLOGY	GRAPH
ITEM 28	0.41	0.56	0.58	0.50	0.16	0.37	0.59	0.48	0.50	1.05	0.29	0.17	NAEP	EARTH		
ITEM 29	0.59	0.69	0.78	0.67	0.19	0.35	0.39	0.35	0.40	0.68	-0.51	0.20	NAEP	LIFE SCI		
ITEM 30	0.28	0.32	0.36	0.31	0.08	0.35	0.41	0.30	0.36	0.89	1.39	0.18	NAEP	EARTH		
ITEM 31	0.38	0.40	0.37	0.38	-0.01	0.16	0.08	0.26	0.15	0.37	1.32	0.04	NAEP	PHYS SCI	PHYSICS	TECH&SO
ITEM 32	0.39	0.44	0.48	0.43	0.09	0.22	0.25	0.28	0.26	0.58	1.40	0.26	NAEP	LIFE SCI	EVOLUT	
ITEM 33	0.39	0.47	0.52	0.45	0.14	0.30	0.37	0.42	0.38	0.95	0.79	0.25	NAEP	EARTH		
ITEM 34	0.12	0.08	0.11	0.10	-0.01	-0.11	-0.10	0.12	-0.05	---NOT ESTIMATED----			NELS88	PHYS SCI	PHYSICS	
ITEM 35	0.25	0.29	0.25	0.26	0.00	0.25	0.13	0.34	0.23	1.69	1.74	0.23	NELS88	EARTH		

TABLE 3-42 (CON'T)

ITEM STATISTICS: SCIENCE TEST

	PROPORTION CORRECT					R-BISERIAL				PRELIMINARY IRT PARAMETERS			SOURCE	CONTENT	
GRADE:	8	10	12	TOTAL	GAIN	8	10	12	TOTAL	A	B	C			
N:	697	473	424	1594	12-8										
ITEM 36	0.18	0.29	0.31	0.25	0.12	0.31	0.40	0.31	0.38	0.66	1.51	0.07	HSB-R	LIFE SCI	
ITEM 37	0.20	0.28	0.36	0.27	0.16	-0.08	0.07	0.19	0.11	---NOT ESTIMATED----			NAEP	PHYS SCI	CHEM
ITEM 38	0.15	0.23	0.21	0.19	0.06	0.03	0.23	0.18	0.18	0.87	2.46	0.17	HELS88	LIFE SCI	
ITEM 39	0.68	0.71	0.74	0.71	0.06	0.17	0.14	0.34	0.22	0.26	-1.70	0.20	NAEP	PHYS SCI	CHEM
ITEM 40	0.19	0.25	0.26	0.23	0.07	0.06	0.32	0.20	0.22	1.47	1.91	0.22	NAEP	LIFE SCI	
ITEM 41	0.26	0.38	0.44	0.34	0.19	0.36	0.50	0.47	0.48	0.73	0.72	0.04	HSB	EARTH	SCI PROC
ITEM 42	0.34	0.45	0.49	0.41	0.15	0.10	0.30	0.44	0.30	1.15	1.17	0.31	NAEP	PHYS SCI	CHEM
COL MEAN	0.40	0.48	0.50	0.45	0.11	0.23	0.33	0.36	0.32						
COL S.D.	0.16	0.18	0.19	0.17	0.07	0.15	0.17	0.13	0.15						
TEST MEAN	16.62	20.05	21.20	18.86	4.57										
TEST S.D.	5.27	6.47	6.62	6.35											
ALPHA	0.69	0.80	0.81	0.79											

ABBREVIATIONS:
HSB = HIGH SCHOOL AND BEYOND
HSB-R = HIGH SCHOOL AND BEYOND (REVISED ITEM)
NAEP = NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS
HELS88 = NEW ITEM FOR HELS 88

PHYS SCI = PHYSICAL SCIENCE
EARTH = EARTH SCIENCE
LIFE SCI = LIFE SCIENCE
CHEM = CHEMISTRY
TECH&SOC = SCIENCE, TECHNOLOGY, AND SOCIETY

QUANT = QUANTITATIVE
GRAPH = GRAPHICAL INTERPRETATION
SCI PROC = SCIENTIFIC PROCESSES
EVOLUT = EVOLUTION

3.3.6.1 Reading Test

The statistics on the reading item pool as shown in Table 3-39 provide additional evidence for the unidimensionality of the reading items. That is, the reliability of the reading item pool is quite high at each grade level as measured by coefficient Alpha (bottom left hand columns of Table 3-39). Reliabilities of .90 to .92 are considered relatively high for a fifty item test and consistent with an assumption of unidimensionality. The mean item difficulty of .52 at the eighth grade suggests that the reading item pool as it now stands should have little or no problem with floor effects. The difference between the test score means when going from 8th to 10th grade is relatively impressive. There is approximately a 5 raw score point gain, or in terms of standard deviation units, a gain of approximately half a standard deviation. The gain is not so impressive from grades 10 to 12. This might simply reflect an expected levelling off of the reading growth curve during the transition from the 10th to 12th grade and not necessarily the presence of ceiling effects. Given these results, it would seem reasonable to have identical forms for the 8th and 10th grade and then change the 12th grade form somewhat to incorporate those items that showed the greater changes when going from the 10th to the 12th grade. The trick here is to reduce the Reading test from 50 items down to 20 to satisfy time constraints with a minimum loss in either the reliabilities or the differences between the grade level means.

The following items were selected for the 8th and 10th grade 20 item reading form.

Items 6-9; expository literature passage.
Items 10-12; expository social studies passage.
Items 16-18; expository science passage.
Items 20-24, 26, 28; poetry.
Items 35-37; expository social studies.

As indicated below we propose to make the Reading test mildly grade level adaptive, i.e., the 12th grade form will be slightly different from the above eighth/tenth grade form. This would seem desirable since the same items that showed large eighth to tenth grade gains were not necessarily the same items showing large tenth to twelfth grade gains.

The proposed twelfth grade form included the following 20 items.

Items 6-9; expository literature passage.
Items 10-12; expository social studies passage.
Items 16-18; expository science passage.
Items 39-42,45; personal letter.
Items 46-50; expository science.

Table 3-43 presents the summary statistics for the proposed 20 item Reading test which would be administered at grades 8 and 10 and the slightly modified form for grade 12. The coefficient Alpha estimates of internal consistency reliability of .82, .85, and .84 for grades 8, 10, and 12 are excellent for a 20 item test. It should be noted that the difference in means between the 8th and 10th grade twenty item test form

TABLE 3-43

SCORE STATISTICS BY GRADE, SEX AND RACE
READING TEST

								EFFECT SIZE*			
	TOTAL	MALE	FEMALE	BLACK	WHITE	HISPANIC	ASIAN	MALE-FEMALE	WHITE-BLACK	WHITE-HISPANIC	WHITE-ASIAN
GRADE 8											
NUMBER OF CASES	700	321	318	92	375	126	84				
ALL ITEMS:											
MEAN, EFFECT SIZE	25.8	24.1	27.5	20.5	27.8	23.4	26.7	-0.3	0.7	0.4	0.1
S.D.	9.9	10.0	9.6	8.6	9.5	9.5	10.1				
ALPHA	0.90	0.90	0.90	0.87	0.90	0.89	0.91				
SELECTED ITEM SUBSET:**											
MEAN, EFFECT SIZE	10.2	9.4	10.9	7.8	10.9	9.3	10.7	-0.3	0.7	0.4	0.0
S.D.	4.6	4.6	4.6	4.1	4.5	4.2	4.8				
ALPHA	0.82	0.81	0.82	0.77	0.81	0.78	0.84				
GRADE 10											
NUMBER OF CASES	470	250	212	38	316	71	23				
ALL ITEMS:											
MEAN, EFFECT SIZE	30.6	29.3	32.0	23.6	31.6	30.2	31.2	-0.3	0.8	0.1	0.0
S.D.	10.3	10.9	9.4	8.6	10.4	9.1	10.5				
ALPHA	0.92	0.93	0.91	0.87	0.92	0.89	0.93				
SELECTED ITEM SUBSET:**											
MEAN, EFFECT SIZE	12.5	12.1	13.0	9.4	13.0	12.1	13.0	-0.2	0.7	0.2	-0.0
S.D.	4.8	5.1	4.4	4.3	4.8	4.3	4.4				
ALPHA	0.85	0.87	0.82	0.79	0.86	0.81	0.83				
GRADE 12											
NUMBER OF CASES	429	188	236	63	266	62	23				
ALL ITEMS:											
MEAN, EFFECT SIZE	33.0	31.8	34.0	30.9	33.9	33.9	27.5	-0.2	0.3	-0.0	0.6
S.D.	10.4	11.7	9.1	10.7	10.4	8.6	10.1				
ALPHA	0.93	0.94	0.91	0.93	0.93	0.90	0.91				
SELECTED ITEM SUBSET:**											
MEAN, EFFECT SIZE	12.4	12.1	12.6	11.3	12.8	12.6	10.7	-0.1	0.3	0.0	0.4
S.D.	4.7	5.1	4.3	4.9	4.7	4.0	4.8				
ALPHA	0.84	0.87	0.81	0.85	0.85	0.79	0.85				
MEAN CHANGE (POOLED S.D. UNITS)											
GRADE 8 TO GRADE 10	0.49	0.56	0.46	0.39	0.44	0.66	0.48				

* EFFECT SIZE = (SUBGROUP1 MEAN - SUBGROUP2 MEAN) / TOTAL GRADE STANDARD DEVIATION

** PROVISIONAL SUBSET OF ITEMS SELECTED FOR TEST FORM:
GRADES 8 AND 10: 6 7 8 9 10 11 12 16 17 18 20 21 22 23 24 26 28 35 36 37
GRADE 12: 6 7 8 9 10 11 12 16 17 18 39 40 41 42 45 46 47 48 49 50

in terms of the new standard deviation units continues to be about one-half a standard deviation. It would appear that the much shortened form has as much sensitivity to growth as did the full 50 item pool.

It is not appropriate to contrast the raw score means of the 10th and 12th grade at this time because of the different items involved. The 12th grade form was, of course, made slightly more difficult to minimize ceiling effects. Accurate comparisons of differences between means for these two grades require the re-estimation of the IRT parameters using only the selected items that make up the reduced pool used in the new forms. Based on the present reliabilities and the selection of items having the most growth potential, we would expect the re-estimated scaled scores (thetas) to approximate or exceed the mean differences found in the total item pool.

Contrasts between the various ethnic groups and whites as shown by the effect size columns remain quite constant whether the full 50 items or the 20 item test is used. While the reliability for the Blacks is somewhat lower than that of the whites at both grade 8 and grade 10, the standard errors of measurement are virtually the same. There does appear, however, to be a slight floor effect for Blacks at the 8th and to a lesser extent the 10th grade. It is our opinion that this effect is not of sufficient size to be of any great concern. It should be kept in mind that when measuring change the effect of greatest concern is the minimizing of potential ceiling effects.

The selected items for the final forms also included 7 items from the HS&B Reading test which should be sufficient to put the NELS items on the same scale as HS&B if one wishes to compare performance between the 1980 HS&B sophomore cohort and the comparable 1990 NELS sophomores.

Appendix E presents the correlations between student self-reports of the number of relevant courses taken and performance on the total reading item pool. Tenth and 12th graders were asked how many years of coursework they had taken in each subject since 10th grade. The 8th grade questionnaire asked only whether or not each course had been taken during the current year. In the eighth grade almost all the students report taking the courses in question. While we feel that this information is of some utility, it is the correlates of change that are of primary importance. At the higher grade levels, it is not so much the number of courses taken, but whether they were "advanced" courses or not (see, e.g., Rock et al.).

3.3.6.2 Mathematics Test

As in the case of the Reading test, the coefficient Alpha reliability estimates (see Table 3-40 bottom left hand columns) based on the total 82 item mathematics pool suggests the presence of a single dominant factor. The fact that there is almost a full standard deviation gain when going from grade 8 to grade 10 is very encouraging. Somewhat less encouraging is the smaller but still substantial gain between grades 10 and 12. These results suggest that one form should be sufficient for the 8th and 10th grade while a somewhat different form will be used in grade 12. As in the case of the Reading test the items that show growth between grades 8 and 10 are not necessarily the same items that show growth between 10 and 12. Criteria for selecting items for the final forms are quite similar to that for the Reading test. Items are selected that are characterized by relatively high biserials and that also show large growth rates between grades 8 and 10 and/or 10 and 12. In addition we want to provide coverage of the various mathematics content areas. An additional constraint is that we also wish to include sufficient HS&B items in the final pool to be able to "crosswalk" between the HS&B cohorts and the comparable NELS cohorts.

The mathematics items selected for the 40 item 8th and 10th grade forms are shown below.

Items 1,4,8,12,14,15,17,28,32,38,42,43,54,60,68; Arithmetic.
Items 2,5,7,22,31,36,40,44,47,48; Algebra.
Items 9,10,34,35,41; Data representation or interpretation.
Items 16,18,45,46,51; Geometry.
Items 25,29,33,53,73; Higher order thinking skills/problem solving.

The following list of 40 items are proposed for the 12th grade Mathematics form.

Items 1,4,6,8,15,17,20,38,43,60,65,75; Arithmetic.
Items 7,13,22,23,40,44,49,55,56; Algebra.
Items 9,34,58,69; Data representation.
Items 16,18,19,21,51,64,66,72,74; Geometry.
Items 50,61,71,78,80,81; Advanced problem solving.

Not surprisingly we have included slightly more geometry and "higher order thinking" or advanced problem solving items in the 12th grade form than in the 8/10th grade form. The inclusion of a criterion that emphasizes the selection of items showing large changes when going from grade 10 to grade 12, as was the case in constructing the 12th grade form, tended to select items that followed the normal curriculum sequence. Twenty-one items from the HS&B tests are also present in the selected NELS item pool. This should be more than sufficient to "crosswalk" from NELS to the comparable HS&B cohorts if desired.

The group statistics and reliabilities of the 8/10th grade form and the 12th grade form are presented in Table 3-44. Inspection of the reliabilities across the three grades suggests that the proposed 40 item Mathematics test forms lost little or no reliability when the item pool was cut in half. The grade 8/10 forty item form maintained the full reliability of the total 82 item pool at the eighth grade and only dropped from .94 to 92 at the tenth grade. The "mildly adaptive" forty item grade 12 form also demonstrated excellent reliability (.91). As in the Reading test the reliabilities for Blacks are lower than those for the Whites in all three grades. However, when the standard errors of measurement are compared there is virtually no difference at any of the grade levels. There simply appears to be less heterogeneity among the Black examinees than among the Whites. There does not appear to be much if any floor effect involved here.

The classifying of clusters of items that reflect different levels of difficulty as well as content is also underway. That is, if one can

TABLE 3-44

SCORE STATISTICS BY GRADE, SEX AND RACE
MATHEMATICS TEST

								EFFECT SIZE*			
	TOTAL	MALE	FEMALE	BLACK	WHITE	HISPANIC	ASIAN	MALE-FEMALE	WHITE-BLACK	WHITE-HISPANIC	WHITE-ASIAN
GRADE 8											
NUMBER OF CASES	667	311	272	125	303	127	84				
ALL ITEMS:											
MEAN, EFFECT SIZE	30.7	31.4	29.5	24.4	33.9	28.2	33.9	0.2	0.7	0.5	-0.0
S.D.	12.7	13.2	12.0	8.9	13.4	11.0	13.5				
ALPHA	0.90	0.91	0.89	0.80	0.91	0.87	0.92				
SELECTED ITEM SUBSET:**											
MEAN, EFFECT SIZE	18.3	18.7	17.6	13.7	20.4	16.8	21.0	0.1	0.8	0.4	-0.1
S.D.	8.7	8.9	8.3	6.3	8.9	7.9	8.9				
ALPHA	0.90	0.90	0.89	0.80	0.91	0.87	0.90				
GRADE 10											
NUMBER OF CASES	599	225	368	88	346	80	34				
ALL ITEMS:											
MEAN, EFFECT SIZE	42.1	45.2	40.5	28.4	46.7	37.5	51.2	0.3	1.2	0.6	-0.3
S.D.	15.7	16.5	14.9	12.2	14.3	14.0	18.1				
ALPHA	0.94	0.95	0.93	0.90	0.93	0.92	0.96				
SELECTED ITEM SUBSET:**											
MEAN, EFFECT SIZE	25.8	27.2	25.2	17.2	28.7	23.1	29.9	0.2	1.3	0.6	-0.1
S.D.	9.2	9.1	9.1	7.6	8.1	8.7	8.8				
ALPHA	0.92	0.92	0.92	0.86	0.91	0.90	0.93				
GRADE 12											
NUMBER OF CASES	546	210	336	69	351	73	36				
ALL ITEMS:											
MEAN, EFFECT SIZE	49.1	52.6	46.9	32.9	53.4	41.5	54.2	0.4	1.3	0.7	-0.0
S.D.	16.2	16.1	15.9	12.7	14.6	15.0	14.9				
ALPHA	0.95	0.95	0.95	0.90	0.94	0.93	0.95				
SELECTED ITEM SUBSET:**											
MEAN, EFFECT SIZE	23.0	24.7	21.9	14.5	25.2	18.9	25.9	0.3	1.2	0.7	-0.1
S.D.	9.0	8.9	8.9	6.8	8.4	8.1	7.8				
ALPHA	0.91	0.92	0.91	0.83	0.91	0.88	0.90				
MEAN CHANGE (POOLED S.D. UNITS)											
GRADE 8 TO GRADE 10	0.84	0.95	0.87	0.52	0.98	0.77	1.00				

* EFFECT SIZE = (SUBGROUP1 MEAN - SUBGROUP2 MEAN) / TOTAL GRADE STANDARD DEVIATION

** PROVISIONAL SUBSET OF ITEMS SELECTED FOR TEST FORM:
GRADES 8 AND 10: 1 2 4 5 7 8 9 10 12 14 15 16 17 18 22 25 28 29 31 32 33 34 35 36 38 40 41 42 43 44
45 46 47 48 51 53 54 60 68 73
GRADE 12: 1 4 6 7 8 9 13 15 16 17 18 19 20 21 22 23 34 38 40 43 44 49 50 51 55 56 58 60 61 64
65 66 69 71 72 74 75 78 80 81

find clusters of items that form a hierarchically ordered scale, the resulting scale scores can have a limited diagnostic as well as a normative interpretation since they can be tied to mastery of various levels of mathematical proficiency. At the present time a cluster of items representing simple arithmetic operations have been identified. These items reflect the application of simple rules. Two second level parcels or clusters have also been tentatively identified. One cluster is defined by the application of simple algebraic rules while the other second level parcel applies simple geometry rules in the solutions. Hopefully a third level cluster of items requiring more complex algebraic reasoning can be identified. Since different students will be in different places with respect to their mathematical development, their change scores can be estimated with respect to each of these levels.

Appendix F presents the correlations between student self-reports of mathematics courses taken and performance on the total mathematics item pool. The same cautions concerning interpretations apply here as they did with respect to reading.

3.3.6.3 Social Studies Test

As indicated above the Social Studies test item pool came close to meeting our criterion of unidimensionality. Inspection of the preliminary IRT results as well as the reliabilities in Table 3-41 along with supplementary information from the item trace functions suggest that it may not provide such a bad fit to an assumed unidimensional model. The fact that the factor analytic rotations tended to mix seemingly disparate content areas across all factors also suggested that this domain may be more unidimensional than originally thought. Given this background, items were selected emphasizing their sensitivity to growth along with an "eye" towards the biserials (and the A parameters) as well as the content areas. While the Social Studies test may be close to unidimensionality, there does not seem to be any compelling psychometric reason for scaling it using IRT and making it grade level adaptive. The test seems to be easy enough for the 8th graders given that the average item difficulty for the 8th graders is .53. There might be a slight ceiling effect as indicated by an average difficulty of .71. It would be better if the average difficulty for the 12th graders was in the .60 to .65 range. This "slight" ceiling effect is sufficiently trivial that it probably can be reduced by a judicious selection of items for the final form.

The items selected for the proposed 30 item final form are listed below:

Items 1,13,17a,17b,21,29,36,40; Citizenship/government.
Items 2,9,12,16,24,28,30,32,38,39,42,43,47,48,50; American History.
Items 15,19,31,37,41,44; Ethics.
Item 7; Geography

While there are probably enough items in Citizenship/government and American History to form subscales, there is little evidence from the factor rotations that these subscales have discriminant validity. Unfortunately there are not a lot of Geography or Ethics items in the pool and in the case of Geography, those that are present tend to be relatively easy. Adding those to the final form could lead to ceiling effects.

Table 3-45 presents the reliabilities and group statistics for the proposed single final form for the three grade levels. The reliabilities of the 30 item form are good for a test of this length. The shortened test form showed slightly larger differences between means across grade level in terms of standard deviation units than did the total item pool. This was particularly true in the transition between the 10th and 12th grade. Thus the reduced form has somewhat less of a ceiling effect than does the full item pool. The shortened form seems relatively sensitive to growth in that there is about 57% of a standard deviation gain between grades 8 and 10 and 70% of a standard deviation gain between grades 10 and 12. It would seem that the single 30 item form could satisfactorily measure gains in Social Studies performance across all three grades.

3.3.6.4 Science Test

The Science Test is a bit of a puzzle. As indicated above the latent root ratio criterion for unidimensionality was not met. The subsequent factor analysis of product moment (phi coefficients) did not yield an easily interpretable set of factors (see Appendix D). While the Science test may be multidimensional, it was hoped that it would yield a factor structure more consonant with the original test specifications. That is, the test specifications required items at all levels of difficulty within the areas of Earth Science, Life Science, Chemistry, and Physics. The factor analysis results may be more complex than expected because items of similar difficulty levels may be trying to load on the same factors even though their item content area is different. As indicated above, factor analysis of item intercorrelations based on phi coefficients tend to yield difficulty factors independent of content areas.

It was decided to estimate the IRT parameters even though the test appears to be multidimensional. This provides us with further evidence for or against the unidimensionality assumption. It also should be kept in mind that while the test is not unidimensional in the strict sense it still possesses a single dominant factor. The IRT results only rejected three items on the basis that item performance was not a monotonically increasing function of ability (theta). However, the biserials, A parameters, and the reliabilities tended to be lower on the Science test than on the other three tests.

These results tend to be consistent with what the NAEP researchers found with their Science pool. It was decided here to select a target test based on "sensitivity to growth", that is, items showing between grade gain, which also had reasonable reliabilities and that follow the original test specifications as closely as possible. The resulting target test could then be evaluated in terms of possible subscales scoring if sufficient items fell on each scale.

The following items were tentatively selected for the "final" 25 item form:

TABLE 3-45

SCORE STATISTICS BY GRADE, SEX AND RACE
SOCIAL STUDIES TEST

								EFFECT SIZE*			
	TOTAL	MALE	FEMALE	BLACK	WHITE	HISPANIC	ASIAN	MALE-FEMALE	WHITE-BLACK	WHITE-HISPANIC	WHITE-ASIAN
GRADE 8											
NUMBER OF CASES	669	311	273	123	306	127	85				
ALL ITEMS:											
MEAN, EFFECT SIZE	31.7	31.4	31.7	26.4	33.4	31.5	33.9	-0.0	0.7	0.2	-0.0
S.D.	10.0	10.3	9.7	8.7	10.0	9.6	9.4				
ALPHA	0.89	0.89	0.88	0.84	0.89	0.87	0.88				
SELECTED ITEM SUBSET:**											
MEAN, EFFECT SIZE	13.9	13.9	13.8	11.4	14.8	13.7	15.0	0.0	0.6	0.2	-0.0
S.D.	5.7	5.8	5.6	4.6	5.9	5.5	5.5				
ALPHA	0.81	0.82	0.80	0.72	0.83	0.80	0.80				
GRADE 10											
NUMBER OF CASES	769	289	470	110	427	140	40				
ALL ITEMS:											
MEAN, EFFECT SIZE	36.4	37.3	35.8	27.7	38.6	36.0	38.3	0.2	1.1	0.3	0.0
S.D.	9.5	10.7	8.5	7.7	9.2	8.0	9.4				
ALPHA	0.89	0.92	0.86	0.80	0.89	0.84	0.89				
SELECTED ITEM SUBSET:**											
MEAN, EFFECT SIZE	17.2	17.6	17.0	12.2	18.5	16.9	18.6	0.1	1.1	0.3	-0.0
S.D.	5.8	6.7	5.2	4.6	5.9	4.8	5.9				
ALPHA	0.84	0.88	0.79	0.71	0.85	0.75	0.85				
GRADE 12											
NUMBER OF CASES	699	255	442	81	430	123	42				
ALL ITEMS:											
MEAN, EFFECT SIZE	42.7	43.7	42.2	30.9	44.9	42.4	44.1	0.1	1.4	0.2	0.1
S.D.	10.2	10.9	9.8	10.7	8.8	9.2	9.2				
ALPHA	0.92	0.93	0.91	0.91	0.90	0.89	0.90				
SELECTED ITEM SUBSET:**											
MEAN, EFFECT SIZE	21.4	22.0	21.1	14.5	22.8	21.0	22.3	0.1	1.3	0.3	0.1
S.D.	6.2	6.7	5.9	6.0	5.5	5.6	5.7				
ALPHA	0.89	0.91	0.87	0.84	0.87	0.85	0.88				
MEAN CHANGE (POOLED S.D. UNITS)											
GRADE 8 TO GRADE 10	0.57	0.59	0.59	0.17	0.62	0.63	0.64				
GRADE 10 TO GRADE 12	0.70	0.65	0.74	0.44	0.76	0.78	0.64				

* EFFECT SIZE = (SUBGROUP1 MEAN - SUBGROUP2 MEAN) / TOTAL GRADE STANDARD DEVIATION

** PROVISIONAL SUBSET OF ITEMS SELECTED FOR TEST FORM:
ALL GRADES:1 2 7 9 12 13 15 16 17A 17B 19 21 24 28 29 30 31 32 36 37 38 39 40 41 42 43 44 47 48 50

Items 4,9,18,20,26; Physical Science/Physics.
Items 5,11,14,17,21,23,29,36; Life Science.
Items 6,10,16,24,28,30,33,41; Earth Science.
Items 3,12,22,42; Physical Science/Chemistry.

While none of the content groupings have sufficient numbers of items to support an IRT approach to developing subscales, one could use the simple "raw" scale scores in evaluating change for at least 3 of the 4 subscales.

Table 3-46 presents the reliabilities of this 25 item test and the mean contrasts with sex and ethnic groups. Inspection of Table 3-46 suggests that the 25 item test was equally as reliable as the original 42 item test. The reliabilities, while being lower than the other three tests, are consistent with the notion of a multidimensional test. As in the case of the Reading test, there appears to be a difference in reliabilities between Blacks and whites at the 8th and the 12th grade. Once again when the standard errors of measurement are computed and compared, there is little difference. Contrasts of the means across grades for the total sample suggest that there is over one-half a standard deviation gain between 8th and 10th grade and about a fifth of a standard deviation gain when going from the 10th to the 12th grade. The gain between the 8th and 10th grade is about equivalent to that found using the total science item pool. The gain between 10th and 12th grade, however, in terms of standard deviation units, is slightly greater for the shorter test.

It is our opinion that further factor analytic work using tetrachoric correlations corrected for guessing should be carried out using the TESTFACT program (Bock, Gibbons, & Muraki; 1985) before the final Science test is constructed. Such analysis might cast additional light on the further development of subscales.

TABLE 3-46

SCORE STATISTICS BY GRADE, SEX AND RACE
SCIENCE TEST

	TOTAL	MALE	FEMALE	BLACK	WHITE	HISPANIC	ASIAN	EFFECT SIZE* MALE-FEMALE	EFFECT SIZE* WHITE-BLACK	EFFECT SIZE* WHITE-HISPANIC	EFFECT SIZE* WHITE-ASIAN
GRADE 8											
NUMBER OF CASES	697	319	317	91	373	126	84				
ALL ITEMS:											
MEAN, EFFECT SIZE	16.6	17.1	16.2	13.9	17.7	14.8	17.4	0.2	0.7	0.6	0.1
S.D.	5.3	5.7	4.8	4.1	5.2	4.7	5.4				
ALPHA	0.69	0.74	0.64	0.50	0.68	0.62	0.71				
SELECTED ITEM SUBSET:**											
MEAN, EFFECT SIZE	10.4	10.8	10.1	8.1	11.2	8.9	11.3	0.2	0.8	0.6	-0.0
S.D.	4.1	4.4	3.9	3.3	4.1	3.6	4.3				
ALPHA	0.70	0.74	0.66	0.55	0.68	0.59	0.73				
GRADE 10											
NUMBER OF CASES	473	253	212	39	316	72	24				
ALL ITEMS:											
MEAN, EFFECT SIZE	20.1	21.3	18.6	16.7	21.2	16.8	21.3	0.4	0.7	0.7	-0.0
S.D.	6.5	6.7	5.9	6.5	6.5	4.6	6.7				
ALPHA	0.80	0.82	0.76	0.81	0.80	0.60	0.83				
SELECTED ITEM SUBSET:**											
MEAN, EFFECT SIZE	13.2	14.1	12.0	10.4	14.1	10.6	13.8	0.4	0.7	0.7	0.1
S.D.	5.0	5.1	4.6	5.4	4.9	3.6	5.3				
ALPHA	0.80	0.82	0.76	0.85	0.80	0.60	0.84				
GRADE 12											
NUMBER OF CASES	424	187	233	62	265	61	23				
ALL ITEMS:											
MEAN, EFFECT SIZE	21.2	22.7	20.1	16.9	22.7	19.8	19.7	0.4	0.9	0.4	0.5
S.D.	6.6	7.2	5.8	5.1	6.5	5.1	7.9				
ALPHA	0.81	0.85	0.76	0.67	0.81	0.68	0.88				
SELECTED ITEM SUBSET:**											
MEAN, EFFECT SIZE	14.2	15.4	13.4	11.1	15.5	13.0	13.0	0.4	0.9	0.5	0.5
S.D.	4.8	5.0	4.5	4.1	4.6	4.2	5.7				
ALPHA	0.79	0.82	0.75	0.68	0.78	0.72	0.86				
MEAN CHANGE (POOLED S.D. UNITS)											
GRADE 8 TO GRADE 10	0.61	0.70	0.45	0.57	0.63	0.47	0.53				
GRADE 10 TO GRADE 12	0.22	0.25	0.32	0.16	0.30	0.60	-0.14				

* EFFECT SIZE = (SUBGROUP1 MEAN - SUBGROUP2 MEAN) / TOTAL GRADE STANDARD DEVIATION

** PROVISIONAL SUBSET OF ITEMS SELECTED FOR TEST FORM:
ALL GRADES: 3 4 5 6 9 10 11 12 14 16 17 18 20 21 22 23 24 26 28 29 30 33 36 41 42

3.3.7 Summary

The Educational Testing Service (ETS) was contracted by OERI to develop the NELS test battery in order to assess students' cognitive growth during their transition from grade eight to grade twelve. The students are to be tested in the spring of 88 (eighth grade), then retested in the spring of 90 (tenth grade) and then retested again in the spring of (92) as Seniors. The long term goal of the NELS longitudinal study is to estimate the extent and correlates of cognitive growth in four cognitive areas. The four cognitive areas are:

- Reading or Literacy
- Mathematics
- Science
- Social Studies

Two pretest forms were constructed--Form A and Form B. Form A included 50 pretest items for the Reading test and 42 pretest items for the Science test. Form B included 82 pretest items for the Mathematics test and 60 items for the Social Studies test. The two forms were spiralled within each grade level. A total of 1599 students across all grades took Form A while 1812 students took Form B. When the full scale administration occurs in 88, only one and one quarter to one and one half hours will be available for testing. Given these limitations, four relatively short tests had to be constructed from the pretest item pool.

The four preliminary shortened forms include 20 reading items, 40 mathematics items, 30 social studies items, and 25 science items. The Reading and Mathematics tests were constructed to be "mildly adaptive" according to grade level. That is, students in the 8th grade receive the same form when they are retested in the tenth grade, but they then receive a slightly different form in the 12th grade. The change in the 12th grade forms was proposed in order to minimize the impact of ceiling effects on gains. The use of adaptive tests assumes IRT scaling. Both the proposed Reading and Mathematics tests met the assumptions necessary for IRT scaling.

The Social Studies and Science test were less homogeneous in content, and in the case of the Science test, apparently not appropriate for IRT scaling. The Social Studies test appeared to have neither ceiling nor floor effects and it is suggested that one form be used at all grade levels. While it is suggested that one form of the apparently multidimensional Science test be used at all grade levels, further analysis should be carried out before the decision is made concerning the final form.

In spite of being relatively short, the preliminary forms of the Reading, Mathematics, and Social Studies tests exhibited quite good reliabilities. It is of interest to compare the reliabilities of the proposed forms with the comparable measures from the HS&B battery. Table 3-47 presents the reliabilities for the Sophomore and Senior cohorts from HS&B and the comparable cohorts from the NELS pretest sample.

TABLE 3-47

RELIABILITIES FOR HS&B AND NELS TESTS

Test	HS&B Sophomore	HS&B Senior	NELS Sophomore	NELS Senior
Reading	.77	.80	.85	.84
Math	.87	.90	.92	.91
Science	.74	.76	.80	.79

The only exactly comparable reliability comparison in the above table is the Reading test since both the HS&B and the proposed NELS test have exactly 20 items. There is considerable improvement here. The increase at the Senior level is probably mostly due to the adaptive approach that uses a slightly different form at the 12th grade. The reliability for the NELS 8th graders is also higher than either the HS&B Sophomore or Senior cohort reliability (.82). These improvements are particularly encouraging since the primary consideration in item selection was an item's sensitivity to growth across grades.

The Mathematics test form in HS&B had 38 items compared to the 40 items in the proposed NELS forms. We have some improvement in the NELS form at the Sophomore level but no gain at the Senior level when you take in consideration the two extra items. The NELS 8th grade cohort yielded a reliability of .90 which was also quite respectable. Both the proposed NELS Reading and Mathematics forms maintained quite high reliabilities throughout the three grade range while selecting items with maximum potential for measuring change.

If you correct the HS&B Science test for the fact that it had only 20 items vs. 25 for the NELS Science test, it still falls slightly short of the NELS test (.78 vs .80) for the Sophomore cohort. At the Senior level they are about the same.

The two HS&B and NELS Social Studies were so different with respect to numbers of items (10 vs 30) that any comparisons would be suspect.

CHAPTER 4: PART A
DATA COLLECTION OF THE NELS:88 PARENT SURVEY

4.0 Overview of the Data Collection

What follows is an account of the data collection of the NELS:88 Parent Survey. The chapter is divided into nine sections. The first section addresses the sampling design of the survey. The second section describes the contents of the parent packet, that is, the Parent Questionnaire and accompanying materials. Three different methods were employed to send the parent packets to the parents. The chapter's third section explains why three methods were used, describes assignment of schools to methods, summarizes procedures used for each method, relates the outcome of using each procedure, and presents recommendations on choice of method for the base year. The fourth section of the chapter describes the receipt control systems--both manual and electronic--that were employed on the Parent Study. The editing and coding functions are the subject of the fifth section. Included are a description of the retrieval that was performed on the critical items of the Parent Questionnaire (including a summary of the items that were most often retrieved) and a description of how the data were computer-entered. Section Six considers the four stages of the Parent Study Follow-Up: the thank you/reminder postcard, the prompting telephone call, the telephone interview and the personal interview. Again, the experience obtained with these four stages is described and suggestions are provided for improvements in the base year. Section Seven provides specific completion rates, school by school, for parents of all sampled students (excluding ineligibles), parents of students who actually participated in the Student Survey, and parents of students whose school's cases were subject to the full range of parent survey follow-up procedures. It also examines parent participation rates under the following groupings: Ethnicity (OBEMLA status); School Sector (Catholic, Other Private or Public); and Permission Type Required (Implied, Explicit). Section Eight addresses the special case of the New York City Public Schools. The restrictions placed on the NELS:88 Parent Survey by the New York City Board of Education are summarized, the procedures that were followed are explained, parent participation response rates and special problems encountered are noted, and recommendations for the base year are listed. The ninth section is the conclusion to the chapter. Its purpose is to consolidate lessons learned during this field-test year to improve the Parent Survey of the base year.

4.1 Sampling Design of the Parent Survey

4.1.1 Determination of Sample Size

While the number of eighth-grade schools selected for the student sample was governed by the number of cognitive test observations required for analysis, a smaller number of observations were needed for analysis of the Parent Questionnaire. Thus only 34 of the 52 eighth-grade schools were selected to have the Parent Survey. One parent/guardian of each of the selected eighth-grade students in the 34 schools was made a respondent in the study.

4.1.2 Distribution of the Parent Survey Across School Sectors

To assure adequate representation of private schools, all sampled private eighth-grade schools were designated to have the parent study. Schools located in areas with heavy student survey activity comprised the balance of the parent sample institutions. This was done to assure efficiency both in terms of cost and personnel.

4.2 The Parent Packet

The parent packet consisted of a copy of the Parent Questionnaire, a letter introducing the study to the parent (see Appendix), and an envelope with pre-paid postage for return of the questionnaire to NORC. The letter emphasized the confidential nature of the survey, requested the parent to promptly send the completed questionnaire to NORC, and asked the respondent to call "Chris Rodgers" collect at NORC if there were any questions either about the study or the questionnaire. In all cases, the packet envelope was addressed: TO THE PARENTS OF: (Name of Student). This mode of address was used because a particular parent respondent was not designated; it was desired that the parents of the child themselves decide which parent was the more knowledgeable concerning the child's education.

4.3 Three Methods of Questionnaire Delivery

4.3.1 Purpose of the Delivery Experiment

In order to determine the optimal method of delivering parent questionnaires in the base year and to study the comparative advantages and disadvantages of each of the different delivery modes, three means of sending parent questionnaires were used: Student Delivery, Central Office Mail, and School Mail.

4.3.2 Distribution of Methods Over Schools in the Sample

For the purpose of assigning delivery methods to the schools in which a parent survey was to be held, only two delivery categories were considered: Student Take Home and Mail Delivery. Central Office Mail and School Mail were collapsed into one category to reflect the assumption that a parent receiving the questionnaire would not be able to distinguish the source of the identically-packaged mailing. By random selection, approximately half of the 34 schools were assigned to each treatment. (Note: In some of the subsequent analysis, however, we considered it of interest to examine the overall impact on parent response rates of using the two distinct types of mail delivery since such factors as quality of addresses available and the respective efficiency of NORC and school personnel in mailing could influence response. In looking at such comparisons, the reader is cautioned that, as will be explained shortly, assignment of schools to the School Mail treatment was essentially by self-selection, not random selection.)

4.3.3 Student Delivery

4.3.3.1 Design of the Student Delivery Treatment

Under this treatment, the parent questionnaires were sent to the school together with the student questionnaires and test booklets approximately one month prior to Survey Day. The School Coordinators were informed both verbally and in writing that the Team Leader would distribute the parent questionnaires on Survey Day. In the Team Leader Manual, Team Leaders were instructed to hand out parent questionnaires at the end of the survey session. They were told to encourage the students to ask the parents to promptly return the questionnaires to NORC. While the child was instructed to give the questionnaire to the parent who knew the most about the child's education, instructions in the letter that accompanied the parent questionnaire also guided the parent in choice of the preferred respondent.

4.3.3.2 Implementation of Student Delivery

In fact, all parent questionnaires that were to be delivered by students did arrive at the school in the manner intended. However, in a few cases, there was apparently confusion on the part of the School Coordinator about when and how the student should be given the questionnaires to take home. Team Leaders reported that in at least three schools, the School Coordinators sent the materials home with the children early. In another case, the Team Leader handed out the parent questionnaires a week prior to Survey Day on the Orientation Day. While we were concerned that this change of procedure might result in a higher incidence of denial of permission for student participation, these fears were apparently unfounded. All four schools that deviated in this manner from the prescribed procedure used the implied consent form for gathering parental permission. In one of the schools there was no denial of permission, in another there was a single denial of permission, in the other two there were two denials of permission each (one of which was later converted). These denial rates are in the same range as those of schools that did follow the prescribed procedure.

4.3.4 Mail Delivery - Two Types: School Mail and Central Office Mail

4.3.4.1 Request For Parent Names and Addresses

Under the mail delivery treatment, whether the mailing would be done from NORC or from the school was determined by whether or not the school was willing to provide NORC with parent names and addresses. If the school was willing to provide addresses, NORC mailed; if not, the school was asked to mail. This matter was first addressed in the initial contacts with the principal and the School Coordinator. (At a point prior to sending parent questionnaires to the schools assigned to student delivery, schools with the latter treatment were also asked if they would have been willing to provide addresses. Of the 16 schools so assigned, exactly half answered affirmatively.)

Well in advance of Survey Day, at the time at which the school was sent student and parent letters of information and parental permission forms, the School Coordinator was sent a roster form in which to fill in parent names, addresses and telephone numbers. An accompanying letter explained how the form should be completed (see Appendix). The School Coordinator was specifically asked to provide the address at which the child resided. A postage-paid envelope was provided for return of the roster to NORC.

4.3.4.2 Lack of Willingness to Provide Parent Information

Of the 18 schools that were assigned the Mail Treatment, five declined to provide NORC with parent names and addresses and therefore were assigned to the School Mail treatment. In none of the five cases did the School Coordinator object to having the school do the mailing.

The reasons the five School Coordinators gave for not wishing to release parent information were: (a) the procedure was against school policy (4 cases) and (b) fear of parent objection (1 case). No strong effort was made to convert schools in this matter.

4.3.4.3 Central Office Mailing

4.3.4.3.1 Design of the Central Office Mailing Treatment

Originally the parent packets were to be mailed from NORC on Survey Day. After it became apparent that early mailing had little or no effect on permissions, we decided to mail the packets one week in advance of Survey Day to allow greater time for follow-up on unreturned questionnaires.

4.3.4.3.2 Implementation of Central Office Mailing

While in general Central Office mailings went smoothly, there were isolated problems. When filling in the parent address forms, some School Coordinators failed to provide zip codes or apartment numbers. Such omissions resulted in substantial delays in delivery of materials, particularly when the parents' last names differed from that of the child.

4.3.4.4 School Mailing

4.3.4.4.1 Design of the School Mail Procedure

When a School Coordinator informed the NORC contact that the school would not provide NORC with parent information, the Coordinator was asked if the school would be willing to provide address labels and mail the questionnaires on Survey Day. Questionnaires that were to be delivered to parents in this manner were enclosed in the box that contained the student questionnaires and tests. Each packet was put into a postage-paid mailing envelope. To ensure that the Coordinator did not attempt to mail to one particular parent of each child and to make certain that each set of parents received the questionnaire for their child, a label that read: [TO THE PARENTS OF: (Name of Child)] was placed in the middle of the envelope.

4.3.4.4.2 Implementation of the School Mailing

Even though the questionnaires were sent to the school in a box that the School Coordinator should only have checked for contents and stored, some School Coordinators were overzealous. In two schools, the Coordinators removed the parent questionnaires from the box and mailed the questionnaires to the parents early. Again, this apparently had no negative effects on the granting of parental consent for student participation in the study. In one school there was only one denial of parental permission, while in the other there were two denials. Also, both schools emerged with exceptionally high Parent Survey participation rates.

4.3.5.0 Analysis of the Results of Using the Three Methods

In evaluating the results of using respectively the Student Take Home, Central Office Mail, or School Mail modes for parent questionnaire delivery, three criteria will be considered: (1) the number of remails that were done under each treatment; (2) early period and later period parent participation rates; and (3) the quantity and quality of the data received under the three methods (represented by respondent non-response to two sensitive question items as reflected in retrieval rates on those items.)

4.3.5.1 Remailing Under the Three Treatments

Respondents were sent a second copy of the parent packet if:

> (1) They called "Chris Rodgers" and reported that they had not received a questionnaire or had lost a copy they had received.

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(2) They noted to a telephone interviewer during the prompting call that they did not have a copy of the questionnaire, but would fill out the questionnaire when a new copy was sent to them.

(3) They and other parents of a particular school had not received the questionnaires because of a systematic error that was discovered either in the course of the prompting (several parents reported not having received a questionnaire) or while investigating a peculiarly weak rate of return of questionnaires (no questionnaires were received ten days after Survey Day).

(4) The post office returned the original Parent Packet to NORC and information was available from the student locator pages or elsewhere that made probable a more successful mail attempt.

The following table summarizes the remailing done at NORC under the three delivery methods for a selected sample of schools (See NOTE below the table). The numerators sum the number of remailings, while the denominators sum the number of students who attended the schools' Survey Days or Make-Up Days. In no sense do the rates shown represent the number of remailings required to assure that a questionnaire was received by every targeted parent. Due to the short duration of the Parent Follow-Up, cases for some eleven schools were not subject to the full range of follow-up procedures. Some of the cases, especially those of schools with later Survey Days, were never even successfully prompted; thus, it is not possible to know if a questionnaire arrived in all cases. Nevertheless, the figures are interesting in that they show little variation among methods in percentage of remailings made. This is surprising as our expectation was that the Student Take Home treatment would necessitate a high rate of remailing.

It may be unwarranted to conclude that having an eighth-grader take a questionnaire home is the most dependable means of having a questionnaire arrive at the home. In two of the schools using the Student Take Home treatment, there were an especially large number of telephone interviews done (ten in one case, eleven in the other). If the parents in these cases also had not received a questionnaire, then the figures concerning quantity of remailings could be misleading. However, in checking the proportion of combined telephone and field interviews done for this particular group of schools overall, we find very little difference between the Student Take Home and the Central Office Mail methods: 35/397 or 8.8 percent for Student Take Home and 19/244 or 7.8 percent for Central Office Mail.

TABLE 4-1
NUMBER OF REMAILS MADE UNDER THE THREE DELIVERY METHODS

METHOD	# IN TREATMENT	# REMAILS	PERCENTAGE OF REMAILS
(1)STUDENT TAKE HOME:	397	34	8.6%
(2)SCHOOL MAIL:	156	15	9.6%
(3)CENTRAL OFFICE MAIL:	244	26	10.7%

[NOTE: Some potential parent cases were omitted from the calculations listed above, namely, (a) those in which a precautionary remailing was made to all parents in the schools when systematic address errors were discovered (two schools, both Central Office Mail: School 49 with 31 cases and School 68 with 13 cases); (b) Make-Up Day cases of one school (School 03) that was designated for Student Take Home treatment, but for which the 16 Make-Up Day cases were mailed from the NORC Central Office; (c) those of the New York City public schools (one Student Take Home: School 54 with 24 cases and two Central Office Mails: School 55 with 24 cases and School 56 with 29 cases), which received exceptional remail treatment, as will be described in a future section.]

4.3.5.2 Three-Week and Final Response Rates Under the Three Treatments

On average 53.3 percent of the Student Take Home questionnaires were received in the Central Office by the third week after Survey Day, while 47.7 percent of the Central Office Mail questionnaires and 59.6 percent of the School Mail questionnaires were received in house after that time span. This encompasses the same selection of cases that were treated in the examination of remailings (see 4.3.5.1 above). The numerator here represents the sum of questionnaires received by NORC, while the denominator represents the sum of selected students who were actually surveyed.

There is, within each treatment group, a full range of three-week return response rates, from very low to very high. In addition, one should avoid interpreting the higher response rate for School Mail as strong evidence that this is the superior treatment. As noted earlier, only five schools were included in this treatment, and all were there by virtue of self-selection. Furthermore, not only could the small numbers involved create misleading results; it is also the case that in one of the schools (School 04), the School Coordinator had the students return their parents' questionnaires to him and he presented all but a few of the questionnaires to the Team Leader on Survey Day.

Again, it is interesting how close together the rates are for Student Take Home and Central Office Mail. The numbers for these groups (denominators respectively 397 and 244) are fairly large and it appears that Student Take Home is not at a disadvantage when compared to Central Office Mail by this criterion.

Later, particular attention will be given to the problems encountered in doing Parent Survey Follow-Up in New York City Public Schools. At this point, we might note that the three-week response rate in the one New York City Public School that had a Student Take Home treatment was 29.2 percent; those for the two New York City Public Schools using the Central Office Mail treatment were respectively 37.9 percent and 37.5 percent. [Again, what is being considered is number of questionnaires in-house as a fraction of the number of eligible students who were surveyed.]

Next we will consider the response rates under the three delivery treatments that were achieved at a later period of the field test. Specifically, we will discuss, now for ALL schools in the Parent Survey sample, the rates that had been reached by May 10th, the cut-off date for the arrival of questionnaires that would be data entered. On that date, 775 questionnaires had been received in house. Response rates have been figured with two different bases, considering as potential respondents the parents of all children who were eligible to have participated in Survey Day or Make Up Day (Formula I) and considering as potential respondents only the parents of children who actually participated in either Survey Day or Make Up Day (Formula II).

(1) PARENT PARTICIPATION RATES BY QUESTIONNAIRE DELIVERY TREATMENT

Formula I (Base = all parents of children who were eligible to participate in Student Survey)

STUDENT TAKE HOME: 363/440 = 82.5%

CENTRAL OFFICE MAIL: 279/402 = 69.4%

SCHOOL MAIL: 136/157 = 86.6%

Given the wide discrepancy between rates for Student Take Home and Central Office Mail, it may be of interest to consider the Central Office Mail and School Mail cases in combination:

COMBINED MAIL TREATMENT: 415/559 = 74.2%

Since all three of the New York City Public Schools had especially low response rates and two of the three were Central Office Mail schools while the other was a Student Take Home school, it is useful to examine what happens to the Central Office Mail and Student Take Home rate differential if the New York City Public Schools are removed from the analysis. Removing 11 cases in-house of 28 eligible students for the Student Take Home school (School 54) and respectively 10 cases in-house of 30 eligible students and 16 cases in-house of 31 eligible students for the Central Office Mail schools (Schools 55 and 56), we have:

STUDENT TAKE HOME: 352/412 = 85.4%

CENTRAL OFFICE MAIL: 253/339 = 74.6%

Then again figuring Combined Mail Treatment, we have:

COMBINED MAIL TREATMENT: 389/496 = 78.4%

A wide differential between the treatments still holds. It appears that Student Take Home proved superior to Central Office Mail (with School Mail back-up) as a means of delivering parent questionnaires.

Next we consider parent completion rates by Formula II -- in which the denominator is based on the child's participation in the Student Survey. The Formula I response rates are useful for seeing how many of the parents that we potentially could have had in the parent sample we actually succeeded in getting to participate. However, parents of students who were either denied parental permission to participate in the study or parents of children who were absent from both Survey Day and Make Day were not targeted in the Parent Survey Follow-Up. Therefore, to assess the strength of the follow-up effort, it is also useful to look at parent participation rates of the targeted population.

(2) PARENT PARTICIPATION RATES BY QUESTIONNAIRE DELIVERY METHOD

FORMULA II (Base = all parents of children who participated in the Student Survey)

STUDENT TAKE HOME: 365/415 = 88%

CENTRAL OFFICE MAIL: 274/363 = 75.5%

SCHOOL MAIL: 136/146 = 93.2%

COMBINED MAIL TREATMENTS: 410/509 = 80.6%

Again removing the relevant New York City Public Schools from consideration we have:

STUDENT TAKE HOME: 343/381 = 90%

CENTRAL OFFICE MAIL: 248/310 = 80%

COMBINED MAIL TREATMENTS: 384/456 = 84.2%

Here again, Student Take Home appears superior to both Central Office Mail and the Combined Mail treatments by a wide margin.

4.3.5.3 Differences Under the Three Treatments Concerning the Following: Willingness of Respondent to Provide Locator Information; Willingness of Respondent to Provide Income Information

Another criterion that can potentially inform a decision on the optimal method of delivering parent questionnaires is whether or not the quality and quantity of the data received with each treatment is similar. A likely indicator of this factor is the extent to which respondents are willing to provide information on such sensitive subjects as personal identification (name, address, and telephone number) and income. Two questions in the Parent Questionnaire directly address these two subject matters, respectively the Respondent Locator Information (Q.1-41) and the Family Income Information (Q.7-1). These particular questions were chosen for close examination because they represent two different types of sensitivity, because both overall had high retrieval rates as compared to most other items in the questionnaire, and because it seemed plausible that respondents could vary in their willingness to respond to these questions according to the manner in which they received a parent questionnaire.

Only the first 609 questionnaires that arrived in house were potentially subject to retrieval due to the limited field period.

> Of 296 Student Take Home cases received, 18 (6.1 percent) initially did not provide Respondent Locator Information and 34 (11.5 percent) did not provide Family Income Information.
>
> Of 136 School Mail cases received, 6 (4.4 percent) initially did not provide Respondent Locator Information and 13 (9.6 percent) did not provide Family Income Information.
>
> Of 177 Central Office Mail cases received, 20 (11.3 percent) initially did not provide Respondent Locator Information and 41 (23.2 percent) did not provide Family Income Information.

Since the number of cases considered is not large, the results of this examination are hardly definitive. Nevertheless, there is some evidence that mailing from the NORC Central Office may have a negative impact on response as compared to either mailing from the school or having the student take the questionnaire home to the parents. In fact, again because of the small number of cases involved, the response rate for School Mail is suspect. Recall that only five schools had this treatment, all were in the treatment through self-selection, and in one of the five schools, the School Coordinator had questionnaires returned to the school.

If one assumes that the parent would have no way of knowing whether a questionnaire was mailed from the school or NORC, it would seem reasonable to combine the cases for the two mail treatments together. Then it is the case that for the Overall Mail treatment, of 313 cases, 26 (8.3 percent) initially did not provide Respondent Locator

Information and 54 (17.3 percent) did not provide Family Income Information.

Comparing the figures above with those for the Student Take Home treatment, we discover that the rates are still quite dissimilar, particularly regarding Family Income Information. While it is difficult to conclude anything definitive from this set of comparisons, there appears to be some evidence that the Student Take Home treatment may be superior with respect to willingness of respondent to provide personal information.

4.3.5.4 Summary of Advantages and Disadvantages of the Three Methods

It would appear that there are advantages and disadvantages to using any of the three questionnaire delivery methods discussed above.

Mailing from the Central Office certainly allows the best control over when and how questionnaires are mailed. Unfortunately, if there are problems with receiving accurate addresses, this method may result in long delays in contacting the respondent.

Mailing from the school, a back-up for a refusal on the part of the school to provide us with addresses, appears to have worked relatively well. The treatment registered one of the lower percentage of remails, the lowest percentages of omission of Respondent Locator Information and Family Income Information, the second highest three-week parent response rate and the highest later-period response rates (as figured by both FORMULA 1 and FORMULA II). None of the above may actually be significant given the small numbers involved and the method of assignment to the treatment. Furthermore, none of the New York City Public Schools employed this treatment. While too few New York City Public Schools cases were included in the 609 potentially retrievable cases to warrant close scrutiny of the questionnaires for retrieval results, it is possible that since parents in these schools had rates of refusal for child's participation in the Student Survey that were well above average, the New York City Public School group as a whole might also be more inclined not to answer the Parent Questionnaire's sensitive questions. If so, the School Mail treatment would be given an artificial edge in the retrieval comparisons.

Having the students carry the questionnaires home on (or before) Survey Day overall registered a superior result. On average, this method of delivery had the highest percentage of questionnaires returned to the NORC central office by the end of a three-week period. The later-period parent participation rates, figured either with a base of parents of eligible students or a base of parents of surveyed students, were substantially higher for this method than were the respective rates for either Central Office Mail or Overall Mail treatments. Furthermore, parents under this treatment seemed more willing than those under the Central Office Mail treatment to provide answers to selected highly important questionnaire items.

Potential advantages of using the Student Take Home treatment in the base year are several. First, unquestionably it would be much less expensive to send parent questionnaires to the schools by bulk mail than to mail the questionnaires to the parents individually. (The cost of having the school mail the questionnaires would be especially high since both the individual and bulk mail costs would be incurred.) Dollars saved with use of the Student Take Home method could no doubt be used with much greater effectiveness elsewhere in the base-year budget. Second, if the Student Take Home method were used in the base year, we might be able to avoid seeking parent address information from the schools, an activity that is expensive and time-consuming. This could mean, however, that we would need to wait until the Student Locator pages arrived before we could acquire information necessary for follow-up on unreturned questionnaires. Alternatively, the needed information could be obtained earlier from the students themselves, perhaps on Orientation Day. Finally, surely some questionnaires would arrive in the home by this method that would not do so under any type of mail treatment. During this field test, several questionnaires were returned to NORC by the post office, many weeks after having been sent, marked with a designation of NO SUCH ADDRESS or MOVED - LEFT NO FORWARDING ADDRESS. This is a very important advantage.

4.3.5.5 Recommendations for Method/Methods To Be Used for Parent Questionnaire Delivery in the Base Year

Based on what we have learned in this field test, it would seem that the highest overall response rates could be achieved in the base year by maximizing the opportunities for making contact with parents. Assuming full flexibility in choice of delivery method, an optimal strategy would begin by using the Student Take Home treatment in all schools. The students might be asked to carry the questionnaires home before Survey Day, perhaps on Orientation Day. The students could then be asked to return the questionnaires on Survey Day to the NORC Team Leader. This procedure should cut down on the number of questionnaires that end up in the bottom of student lockers. In many cases, School Coordinators would be willing to perform follow-up on outstanding questionnaires, thus raising parent participation at low cost. In those cases in which the School Coordinators felt this task too burdensome, we would do the Parent Survey follow-up completely ourselves. For questionnaires that remained outstanding after Survey Day, we could initiate the same schedule of follow-up that apparently proved so successful in the field test.

4.4 Receipt Control

The next facet of the data collection that will be examined is receipt control, for which both manual and automated systems were used.

4.4.1 The Manual Receipt Control System

Originally the manual receipt control system for the Parent Survey was designed to serve as a temporary measure until the Survey

Management System (SMS) could be brought on line. However, even after the SMS became operational, manual receipt control was continued, both as a check on the accuracy of the SMS and because in some cases it was able to serve functions that the SMS could not.

The following procedure was used to track questionnaires: When the daily mail arrived, the receipt control clerk opened the envelopes containing the new parent questionnaires and wrote the day's date in the upper right-hand corner of each questionnaire. After recording the date of arrival of each case on the appropriate school's student roster, the clerk entered all cases on a Daily Take Report. This she delivered to the Supervisor of the Telephone Shop (who would use the Report to delete completed cases from the interviewers' assignments). Next, the questionnaires were edited (this function will be described in a later section). For all questionnaires that needed retrieval, the clerk entered case numbers on a Telephone Shop transmittal form. She also entered the same numbers on a log which tracked the in-house status of questionnaires. When questionnaires did not require retrieval, the clerk gave the questionnaires to her Supervisor to be checked for editing errors. Questionnaires were then coded (this activity is also described in the next section). Following coding, the receipt control clerk entered case numbers on a DATA PROCESSING transmittal form and logged out each case on the in-house status sheet to DATA PROCESSING. Retrieval cases returned from the Telephone Shop were subject to the same set of procedures. After questionnaires were computer-entered and returned from DATA PROCESSING, the clerk entered the case numbers with a status of ARCHIVE on the in-house status sheet and filed the hard-copy questionnaires by school number.

4.4.2 The Survey Management System

NORC's Survey Management System (SMS) was adapted for the NELS:88 field test in order to provide automated receipt control functions. The system contained a record for each student in eighth, tenth, and twelfth grades in the survey. A number of school-level and sampling variables were included in each student record, as was a field for recording the status of student questionnaire and test data. In addition, the records of students in Parent Survey schools contained fields that tracked the various methods used in that component of the field test (such as type of distribution used), parent questionnaire completion rates and the status of in-house processing.

Reports using all of these components were generated for the project routinely. Users were able to view reports on-line, at their own micronetwork stations, or in hardcopy form. Copies of all reports are included in the Appendix. Note in particular reports 4 and 5, which display parent completion rates by student completion rates and parent completion rates by the status of in-house processing steps.

Customized reports and case-level lists were also generated by the SMS. For example, lists of all students or parents in a school and their current status in the survey were useful in reconciling manual records with the system. Finally, the SMS was used to reconcile project records with the questionnaire data files before final tapes were produced.

4.4.3 Base Year Survey Receipt Control

The magnitude and complexity of the Base-Year NELS:88 Parent Survey will require significant enhancements to NORC's SMS. The adapted system will have a hierarchial structure to accommodate several layers of gatekeepers (districts, schools, parents). It will contain personnel and locator data on districts and schools, as well as a scheduling component linking each school's desired Survey and Make-Up Dates to NORC field staff. At the respondent level, students will be linked to parents as well as schools.

The SMS served the project well during the small field test. It also provided project staff with experience in manipulating and interpreting relevant variables. This experience has already begun to inform the design of the more sophisticated system that will be used in the Base-Year Survey.

4.5 Editing/Coding/Data Entry

The next section of this chapter focuses on the editing and coding aspects of the Parent Survey. It also briefly describes the preparation of the data for computer entry.

4.5.1 Description of the Editing and Coding

Essentially, the editing function encompassed marking critical items for retrieval. Critical items are data elements considered by the study's designers to be of major significance for analysis or locating purposes. Any such items that were missing or improperly answered in a given questionnaire were to be checked off on a list of critical items. The list was then placed inside the front cover of the questionnaire and the two items were sent to the Telephone Shop for retrieval of the needed information.

The coding function was performed not only by the editor/coder, but also by the telephone interviewers and the field interviewers. The interviewers were instructed to mark particular codes next to the relevant column numbers in the questionnaire when a respondent either refused to answer a critical item (7) or did not know the answer to a critical item (8). The editor/coder used these same codes if the respondent wrote in a note indicating one of these dispositions. If, within a critical item, some portion, say in the locator information, was not to be retrieved if missing, the editor/coder marked another code for missing items (9). Coders used ($) to designate an illegitimate multiple response.

4.5.2 Treatment of Critical Items

Two important purposes of the field test of the Parent Survey were to discover difficulties respondents had in answering questions and to gather parent data to inform both analysis and future follow-up efforts. While it was important to try to keep information given by the respondents in as unedited a condition as possible for the first purpose, it was as important to ascertain if the respondents would be willing to provide answers to the more critical of the study's questions. Therefore, although retrieval was performed for a selected number of critical items, we tried to preserve information on the original absence of response on such items. We kept a tally of how many times particular critical items required retrieval and instructed telephone interviewers to use red pencil when adding to the questionnaire information acquired in the retrieval call. In addition, a group of 166 questionnaires that arrived in the later part of the period were not eligible for retrieval at all. That is, responses in those questionnaires were maintained in the original condition.

4.5.3 Summary of Items Requiring Heavy Retrieval

For the 609 cases subject to retrieval, the following table lists those critical items that were most often marked for retrieval. [A list of all critical items is provided in Part B of this chapter.] Locator items, needed for the First Follow-Up, and non-locator items, which will appear on the public-use data tape for the base year, are grouped separately. Generally, the list includes all critical items that were sent for retrieval at least 25 times, that is, that had a greater than four percent retrieval rate. Items that had lower retrieval rates are included when these are of particular interest.

TABLE 4-2
CRITICAL ITEMS WITH HEAVY RETRIEVAL

LOCATOR ITEMS:

Q.#	Label	# Times Checked	Summary
1-41	RESPONDENT LOCATOR INFORMATION	39	This asked the name, address and telephone number of the respondent. Respondents often told interviewers they didn't think NORC needed the information.
1-42	RELATIVE LOCATOR INFORMATION	106	This asked the name, address and telephone number of a relative of the respondent. Respondents often said they didn't want NORC to disturb a relative; foreign-born respondents often

			reported they had no relative in the United States.
1-44	**CHILD'S FUTURE HIGH SCHOOL**	47	This asked the name, address and telephone number of the high school the parent expected the the child to attend. On retrieval, most parents said they did not know where the child would attend high school.

NON-LOCATOR ITEMS:

Q.#	Label	# Times Checked	Summary
1-9	**RESPONDENT'S ORIGIN OR DESCENT**	37	This asked the respondent to classify his/her origin or descent. The basic classification was among Hispanic or Spanish / Asian or Pacific Islander / Neither Hispanic nor Asian or Pacific Islander. Answers respondents provided to open-ended portions of the question indicated confusion. For example, they sometimes listed non-Hispanic countries when filling in Other Hispanic as a response.
1-34	**WORK**	12 (1) 11 (2) 15 (3)	This was a three-part question. The first part asked if the respondent was presently working full-time. If so, there was a skip to the next question. If not, the second part asked what the respondent was doing (Unemployed, looking for work; Unemployed, not looking for work; Retired, etc.) The third question asked if the respondent had ever had a regular job.
1-35	**PRESENT OR MOST RECENT JOB**	20 (b)	This question with two critical parts (b) and (f) asked about the respondent's present or most recent job. The first part

		25 (f)	was an open-ended question which asked what kind of work the respondent normally did. The second critical part asked the respondent to categorize his/her job using a long listing of occupation groups.
2-4	CHILD'S HEALTH PROBLEMS	30	This asked about health problems the child has. In retrieval it was discovered that this was often not answered because the child had none of the problems listed.
3-12	CHILD'S PROGRAMS/ SERVICES	31	This asked if the child is enrolled in certain special programs/services. Again, it often was not answered if none of the choices applied.
7-1	FAMILY INCOME	74	This asked the amount of the the family's income for the past year. Most omissions here were deliberate.
7-6	SAVINGS FOR CHILD'S EDUCATION	36 37 (a) 65 (b) 69 (c)	This question had four critical parts. The first asked if the respondent, the spouse, or the child's custodial parent or guardian had done anything specific to have some money for the child's education after high school. The next part (a) asked if the respondent had any of a variety of financial options as a means for saving for the child's education. Parts b and c of the question asked respectively about the amount of money that the respondent has set aside for the child's future educational needs and about the amount of money that the respondent expects to have set aside for the child's educational expenses by the time the child finishes high school. The latter three parts of the question were critical only if the initial part of the question was answered in the affirmative.

4.5.4 Implementation of Editing/Coding

The editor/coder was provided with a manual of specific instructions concerning when retrieval should be called for on each critical item. She performed the editing and coding well and made few errors. The interviewers were much more prone to error, mostly in not completely coding all questions that the respondent refused to answer or answered "Don't Know". This is understandable since this method of coding was quite different from what the interviewers were accustomed to doing.

4.5.5 Recommendations for the Base Year Concerning Editing/Coding

In the base year, the parent questionnaires will be electronically scanned. Therefore, the editing and coding will differ considerably from that done in the field-test year. Editing will still be done to identify items for retrieval. Every effort should be made to remove any ambiguity that field-test results reveal to exist in individual questions. Decisions will need to be made as to the extent cleaning of data should be done before the scanning is performed. The possibility does exist to do some of the cleaning of the data by machine after the scanning.

It appears that the coding of "Refusal" and "Don't Know" by conventions unfamiliar to the interviewers should not be done by interviewers. Their attention should be fully focused on obtaining answers. As they are accustomed to do, interviewers should write in "Refusal" and "DK" (for DON'T KNOW) to the left of the question number. If the "7", "8", etc. codes are needed for data entry, then the editors should translate the interviewer comments into these codes.

4.5.6 Data Entry

Questionnaire data were converted to machine-readable form using a conventional key-to-disk method. Data were then 100 percent verified, that is, re-entered independently by a different operator, with the software comparing all fields for identity.

Special characters were entered to record instances of multiple responses. Blank items or, for critical items only, missing values coded at the edit phase, were captured exactly as these appeared in the hard-copy questionnaires. These sorts of problems in the data were important to retain in order to reveal areas requiring instrument revision prior to the Base-Year Survey. In general, no machine cleaning was applied to the field test data. [One exception is respondent locator data. In order to assure an accurate and complete locator database for the First Follow-Up field test, home address and telephone information were cleaned for invalid or missing data items. When errors were found, computer records were used to correct items such as zip and area codes (through hard-copy lookup), keypunch the improved data and add these to the file.]

In the Base-Year Survey, instruments will be optically scanned rather than keypunched. The data will then undergo rigorous machine edit. NORC will consult closely with CES before final cleaning specifications are applied.

4.6 The Stages of Parent Survey Follow-Up

The Parent Survey Follow-Up consisted of four stages of effort: a thank-you/reminder postcard, a telephone prompt call, a telephone interview, and a personal interview. Each is discussed in detail below.

4.6.1 The Thank-You/Reminder Postcard

The first stage of follow-up was the mailing from NORC of a postcard that thanked parents who had returned the questionnaire and prompted parents who had yet to mail in the questionnaire. On the postcard, the fictitious name "Chris Rodgers" was given as an NORC contact person and the parents were invited to call collect if they had not received the questionnaire or wished to have questions answered. The postcard was mailed ten days to two weeks after the school's Survey Day.

Approximately twenty "Chris Rodgers" calls were received that specifically originated with receipt of the postcard. About half of these calls were simply checks on the part of respondents to make certain that the questionnaires they had mailed had arrived in Chicago. Only two callers requested clarification of questions. The rest called to report that they had not received the questionnaire and to request remailing of the questionnaire.

4.6.2 The Telephone Follow-Up

4.6.2.1 Structure of the Telephone Shop

The telephone shop was responsible for three main tasks: (1) retrieving on critical items; (2) making prompting calls to parents who had failed to return parent questionnaires one week after the postcards were mailed; (3) seeking and carrying out telephone administration of the parent questionnaire to parents who failed to return questionnaires after the telephone prompt.

The shop was headed by a Telephone Shop Supervisor. This individual worked with a staff of four part-time interviewers, all of whom were experienced NORC staff. The shop was in operation from early March until the end of the third week in April.

4.6.2.2 Training of the Telephone Interviewers

Interviewers were provided with an Interviewer Training Manual and a Question-by-Question Guide to the Parent Questionnaire, both of which had been specifically designed for telephone interviewers. The training manual, which had been approved by the CES Project Officer, covered such material as general orientation to the study; scripts for making retrieval, prompting and interviewing calls; answers to questions parents could be expected to ask; and advice on converting parents who resisted being respondents. The "Q-by-Qs" guided the interviewer in converting the questionnaire--which was designed to be self-administered--for telephone administration. They also highlighted the critical items and pointed out certain difficulties in the questionnaire that needed special consideration (for example, skip patterns that might cause confusion).

Each interviewer underwent a three-hour training session, then had a mock telephone interview administered by the Telephone Shop Supervisor. By the time of the training session, the interviewer was expected to have read the Interviewer Training Manual. The session was used to ascertain the interviewer's understanding of the project specific material and to explain the forms that would be used in the course of the field work. During the mock interview, the Supervisor assessed the interviewer's familiarity with the survey instruments and with the specifications in the Q-by-Qs.

4.6.2.3 The Three Telephone Shop Functions

This section will examine the three functions served by the telephone shop: retrieval, prompting, and interviewing.

4.6.2.3.1 Retrieval

As noted in Section 4.5.1, once the editor had checked off critical items needing retrieval on the Edit Sheet, that sheet and the questionnaire were sent to the telephone shop. The Telephone Shop Supervisor then assigned the case to an interviewer, who was expected to telephone the respondent and acquire the missing data.

4.6.2.3.1.1 Retrieval Procedures

Telephone Interviewers were instructed to prepare for each retrieval call by checking questions in the questionnaire that appeared on the Edit Sheet to be certain they understood the reason for retrieval on each question. During their training, the interviewers were specifically prepared to convince respondents of the desirability of providing answers to each critical item. Particular attention was given to arguments the interviewers might provide to obtain locator and income information. However, while interviewers were prepared to be persuasive, they were also told to make clear to the respondent that the study was voluntary and the respondent did have the right not to answer any question s/he did not care to answer.

4.6.2.3.1.2 Implementation of Retrieval

Retrieval activity went fairly smoothly. In general, as revealed in the call records, respondents apparently offered no objection to being called for retrieval of information they had not previously provided. If they did not care to give the information after the interviewer provided the justification for needing that information, they simply said so.

Only the first 609 cases received were subject to retrieval. It would have been inefficient both in terms of time and cost to have maintained the telephone shop past the time that it was closed. Of these 609 cases, 268 were sent to the telephone shop for retrieval. The Telephone Shop Supervisor reported that all but 11 of the 268 respondents were successfully contacted.

4.6.2.3.1.3 Analysis of Success in Retrieval of the Respondent Locator Information and the Family Income Information

Rates of successful retrieval on two of the more often-unanswered Critical Items, namely the locator information on the respondent (Q.1.41) and the family income information (Q.7.1), are given below:

Question 1.41: Of 39 instances in which this item was sent for retrieval, the information was successfully retrieved 33 times. Retrieval rate = 84.6%

Question 7.1: Of 74 instances in which this item was sent for retrieval, the information was successfully retrieved 33 times. Retrieval rate = 44.6%

Not surprisingly, respondents offered the greatest resistance to the income question. People might have a wide range of reasons why they would not wish to report their income.

The high retrieval rate on the first of the two questions could well be due to the fact that the interviewer who was on the phone with the respondent already had perhaps the most sensitive portion of the respondent locator information, that is, the respondent's telephone number. If, in a given questionnaire, only this question was marked for retrieval, one could argue that a retrieval call might not have been necessary. Frequencies calculated for the NELS:88 Field Test Student Survey reveal that of 1329 eighth-graders who filled out the Student Locator pages, only 13 (less than one percent) failed to give their mother's name, and only 7 (again less than one percent) failed to give their own address. A cursory examination of questionnaires reveals that eighth-graders do not seem to have any difficulty in providing zip codes. If eighth-graders do provide adequate locator information, it would seem cost efficient not to telephone the child's home to gather information that we effectively already have.

4.6.2.3.1.4 Suggestions for the Base Year Concerning Retrieval

Additional interviewer training in persuasion may boost base-year retrieval rates. The number of questionnaires being sent for retrieval might also be dramatically reduced if more lenient criteria were used for determining the necessity of retrieval. One such example might be only calling to gather respondent locator information if the information appears in neither the Parent Questionnaire nor the Student Questionnaire. Finally, an attempt should be made to identify characteristics--ethnicity, school sector, social economic status, region types-- associated with high resistance to answering locator and income information. Specific strategies might be devised for dealing effectively with respondents possessing these characteristics.

4.6.2.3.2.0 Prompting

The prompting telephone call was designed to be a low-pressure reminder to the parent to send in a questionnaire that was still outstanding. It also served as an opportunity to discover which parents had not received the questionnaire.

Only parents whose children had actually participated in Survey Day (or Make-Up Day) were pursued by the telephone shop.

4.6.2.3.2.1 Prompting Procedures

The interviewer was instructed to ask for that parent/guardian of the child most familiar with the child's education. The interviewer then would go on to ask if the parent/guardian had yet filled out the questionnaire. If the answer was negative, the interviewer would attempt to have the respondent give a specific date on which the questionnaire would be mailed. If the respondent reported that the questionnaire had been mailed, the interviewer thanked the respondent for contributing to the study.

The prompting call was scheduled for one week after the mailing of the prompting postcard. Before cases were sent to the telephone shop, face sheets for all cases that were not being pursued were separated from those that were still eligible for a prompting call. Log-bar sheets listing the locator information provided by the child about himself/herself and family were annotated for the current disposition of the parent cases. The Telephone Shop Supervisor would use these log-bar sheets to track the activity on a given case. The interviewers were given face sheets containing the same locator information. They were also given call records to be used by any interviewer that worked on the case.

At the beginning of each work day, the Supervisor distributed cases to be worked that day to the various interviewers. The interviewers kept records of how much of their time they spent with the various types of contacting they were doing. On the call records they recorded the time and date of each call made and marked a disposition code to show the state of the contacting. They also wrote for each contact they had with the household what occurred in the course of the call. At the end of the day, the interviewers returned the assignments to the Supervisor.

4.6.2.3.2.2 Implementation of Prompting

Prompting was highly effective. Within a week after a particular school's cases were prompted, a substantial number of cases for the school would arrive in house. While some parents conveyed a refusal during the prompting call, most parents told the interviewers that they had not had the time to complete the questionnaire.

Individual cases were considered to have come in without prompting if they arrived in house within 20 days of the school's Survey Day. Some 430 cases or 47 percent of all potential cases met this criterion. While all of the rest of the cases were theoretically subject to prompting, New York City Public Schools could not be prompted by phone and, due to the tightness of the field test schedule, some of the cases for schools with later Survey Days were not prompted. Some indication of what might have been the overall result if no prompting had been done can be seen from the individual results for some of these later schools. Their completion rates (cases in-house/potential cases) averaged in the mid-sixties.

As will be discussed in greater detail later, the parent cases of eighteen of the schools in the sample, those that were located in the states of California, Texas, and Florida and that had Survey Days in the first six weeks of the field period, received a full follow-up treatment, including having cases sent to the national field staff. Looking at this subsample's pattern of return of questionnaires offers some indication of what might be expected in the base year when all schools will receive the extensive follow up.

Since only parents of children who actually participated in the Student Survey were pursued in the Parent Survey follow-up, response rates in the following analysis will be calculated by what we have previously called FORMULA II, that is, dividing the number of parent questionnaires received by the number of children surveyed.

By the time that cases for these 18 schools were sent to the field, 385 (74.3 percent) of 518 cases had arrived in house. Of these, 251 (48.5 percent) of the 518 had come in without prompting, that is, within 20 days of Survey Day; 112 of the 518 (21.6 percent) had come in following prompting; and 22 of the 518 (4.2 percent) had been completed by telephone administration.

4.6.2.3.2.3 Evaluation of the Prompting Effort

The telephone shop completed a total of 338 prompts. For the most part, the prompting calls were made within a week of the time the relevant cases became eligible. Most of the efforts were completed with just two or three telephone calls to the household. The average prompt call, including preliminary attempts, took 11 minutes. This did not include the administrative work such as filling in records of calls that the interviewer had to perform on the case. Some cases required as many as ten or twelve calls and still could not be completed. While interviewers varied the times they attempted to call, the fact that the interviewers worked only evening and weekend hours made much variation of times of contact difficult. There were some cases in which someone else in the household informed the interviewer that the appropriate respondent could be reached only during specific daytime hours.

4.6.2.3.2.4 Recommendations for the Base Year Concerning Prompting

In the base year, as was done in the field-test year, every effort should be made to employ highly experienced telephone interviewers who are comfortable with refusal conversion. The telephone interviewers represent NELS:88 to a good proportion of our parent respondents. Parent refusals to participate can and must be avoided at the time of the telephone prompting. An articulate and well-informed interviewer should be able to allay most of the fears that might cause a respondent to take a negative attitude towards the study.

Initially consideration was given to the idea of having field interviewers do the prompting and telephone interviewing calls. The experience of the field test suggests that there are several economies to having this initial work performed in the Chicago office. Perhaps the largest advantage is that assignment updating can easily be done on a daily basis. Also, any problems that become evident during the telephone calls can be immediately handled by the Parent Follow-Up . Supervisor. Still a third advantage, assuming that the scale of the base-year survey would make feasible a day-time shift for interviewers, is that in-house interviewers could stagger times of call attempts easier than could field interviewers who would be conducting Student Surveys in the daytime.

There are, however, strong advantages also to having the field staff do at least the telephone interviewing stage of the follow-up. In a situation where the field staff are the same individuals who conducted the Student Surveys in the schools, these interviewers are well informed about the study, know the region where the parents live, and are well accustomed, in most cases, to bringing about refusal conversions. Moreover, a field interviewer would be in the position to make an immediate offer to schedule an in-person interview if the respondent objected to participating in a telephone interview. Still another advantage would be the cost savings. Local telephone rates are generally much cheaper long distance rates. A combination of having the prompting and retrieval done in the central office and the telephone interviewing done in the field would seem ideal.

4.6.2.3.3.0 Telephone Interviewing

The third level of Parent Survey follow-up was the telephone interview. Our experience with this phase of the follow-up is summarized below.

4.6.2.3.3.1 Telephone Interviewing Procedures

When a case was still outstanding one week after a successful prompt, it became eligible for telephone interviewing. The telephone interviewers were also told to attempt a telephone interview even at the initial prompting contact if it became apparent that the respondent would not be mailing in a questionnaire. As with the prompting, the interviewer was asked to contact that parent who was most knowledgeable about the child's education.

4.6.2.3.3.2 Adaptation of the Questionnaire for Telephone Administration

As noted above, the Parent Questionnaire was designed to be self-administered. Therefore telephone interviewers had to memorize any changes that needed to be made to make the questionnaire comprehensible when heard over the telephone. An example of a question that was particularly troublesome for the telephone interviewer was Question 1.35F, which asked the respondent to classify his/her occupation from a long list of job categories. A purpose of the field test was to ascertain whether the respondent had difficulty in making such a classification from the given choices. It was therefore important to let the respondent have a choice of categories. This particular issue was settled for the field test by having the interviewer pull out three or four of the categories that seemed probable answers, given the occupation the respondent had previously stated in a related open-ended question, and asking the respondent to choose among these. (Since this is a question that often needed to be retrieved, it will be necessary to deal with this dilemma during the base year. There will be no open-ended questions in the base-year questionnaire and thus the telephone interviewer will not have a prior statement of occupation to guide category choice. If a telephone interview version of the questionnaire were made available in the base year, the open-ended question might be added to that questionnaire to guide the respondent more efficiently into a more limited and appropriate menu of choices.)

All in all, even though the self-administered questionnaire was fairly simple in structure, it was not easy to administer by telephone. However, the experience of the field test gives a strong basis for developing specifications and training that will facilitate efficient telephone and in-person administrations of the parent questionnaire.

4.6.2.3.3.3 Implementation of Telephone Interviewing

Telephone interviewing directly added 36 cases to the roster of completed cases. Another seven telephone interviews were obtained but these turned out to be duplicates. That is, the respondent offered to do a telephone interview when the interviewer said that there was no record that the completed questionnaire had arrived at NORC.

According to the call records, most respondents heavily resisted doing a telephone interview. Instead, they promised they would send in the questionnaire immediately. Many of them subsequently did so. Thus the interviewing call often turned into an especially effective second prompting call.

Very few refusals were registered at this stage. While the interviewers had been trained to deal with conversion of refusals, what they were in fact mostly confronting were promises to send in the questionnaire by mail, not refusals. In deference to respondents' preference for mail-in of the questionnaire, interviews were not aggressively pursued. If the case turned out to be a "hidden refusal", that is, the promise to send in the questionnaire was not kept, then the case was designated for field action.

The quality of the telephone interviewing work was good. The records of calls reveal that these respondents did not complain that the telephone interviewing experience was excessively burdensome. The telephone interviewers recorded the beginning and ending times of each interview; the average interview lasted 44 minutes. Only two partial interviews, those in which only critical items were asked, were conducted. There were no breakoffs by respondents.

4.6.2.3.3.4 Recommendations For The Base Year Concerning Telephone Interviewing

If separate versions of the questionnaire for telephone and field interviewing are not produced for the base year, the telephone interviewer will still have to contend with the modifications necessary to make the self-administered questionnaire suitable for telephone administration. It should be investigated whether required modifications are sufficient to justify the cost of producing different versions of the questionnaire, given the scale of the base-year follow-up. If a telephone-interviewer edition is not prepared, a greater amount of practice in dealing with the modifications should be built into the interviewer's training.

Particular attention should also be given in the training to improving the record of the interviewers with respect to achieving telephone interviews. Respondents may resist doing telephone interviews, but the fact remains that telephone interviews are much cheaper to do than personal interviews. Perhaps some type of incentive can be built in to encourage interviewers to strenuously pursue telephone interviews. Closely related to this issue is the necessity of hiring interviewers who are experienced converters. As noted in Section 4.6.2.3.2.4, serious consideration should be given to assigning the telephone interviewing to the field interviewers.

4.6.3.0 The Field Follow-Up

Personal interviewing performed by highly skilled field interviewers who had already served as Team Leaders on the Student Survey was the ultimate means used to obtain outstanding parent questionnaires. This section discusses our experience with this phase of the NELS:88 Parent Study Follow-Up.

4.6.3.1 Field Follow-Up Procedures

Not all schools' cases were subject to the field follow-up treatment. Due to the short length of the field period and the staggering of the Survey Days, it would have been uneconomical to do field follow-up on cases for schools which had the later Survey Days. Thus, with a single exception, only schools that had Survey Days during the first six weeks of the field period were eligible for the field treatment. The single exception was a private Miami school which had a student body that was largely Hispanic. (Hispanics are a respondent group for which we were especially interested in studying response characteristics.) That school's Survey Day was held in the seventh week. Of the schools with Survey Days in the first six weeks, those that were located in Illinois and New York were also eliminated from field follow-up treatment. In Illinois, only a few cases were outstanding for the two schools eligible. In New York, each interviewer would have dealt with a single school's cases. (In New York City Public Schools, only written follow-up was allowed for the Parent Survey, as will be discussed in a later section.)

The Parent Follow-Up Supervisor dealt directly with the three Field Managers from California, Florida and Texas, all of whom had previously performed the Field Manager (FM) function on the Student Survey. These three respectively supervised teams of two, three, and two interviewers. Although training of interviewers was largely self-study --interviewers were given a Training Manual and a set of Question-By-Question Specifications (Q-by-Qs) prepared especially for them--the Field Manager conducted a phone mock with each of her interviewers. Immediately prior to the three-week field period, the Parent Follow-Up Supervisor sent case assignments and the call records on each case directly to the interviewer. When the field period began, the FM took reports from the field and conveyed to the interviewers the updating information received from Chicago. The FM also consulted with interviewers on such matters as how best to arrange their individual field schedules and on when to abandon work on a case and declare it a final non-completion.

4.6.3.2 Adaptation of the Questionnaire for Personal Administration

The Question-by-Question Specifications prepared for the field interviewers were similar to those used by the telephone interviewers. The principal difference between the two sets of Q-by-Qs was that cards showing answer choices were used by field interviewers to ask respondents some of the questions. Here again, it was necessary for the interviewer to memorize all modifications and instructions.

4.6.3.3 Implementation of Field Follow-Up

The field follow-up was generally a success, although some problems were encountered that merit close examination. The following table summarizes what was accomplished. CASES SENT were all outstanding cases for eligible schools in those states, including those cases in which the respondent had conveyed to a telephone interviewer a refusal to participate in the study. The nature of the successful cases is given below. FINAL NON-COMPLETIONS included hostile and non-hostile refusals, "silent refusals" (either the respondent promises to mail in a questionnaire and does not or the respondent is never available either in person or by phone), non-locatables, cases which were not pursued by interviewers for lack of time, and any other response status that resulted in our not receiving a questionnaire at NORC. The particular dispositions of the FINAL NON-COMPLETIONS are provided later in the chapter in Section 4.7.3.

TABLE 4-3
DISPOSITIONS OF PARENT SURVEY CASES SENT TO THE FIELD

	CASES SENT	SUCCESSFUL CASES	FINAL NON-COMPLETIONS
FLORIDA	52	36 (69.2%)	16 (30.8%)
TEXAS	32	24 (75%)	8 (25%)
CALIFORNIA	49	29 (59.2%)	20 (30.8%)

Of the 89 cases that were successfully completed, 22 were telephone interviews, 31 were field pick-ups (the interviewer went to the respondent's home to collect a self-administered questionnaire), and the remainder were mail-ins subsequent to telephone contact with the field interviewer. Interviewers who could give sufficient time to the assignment during the very short three-week period generally were highly successful in completing some very challenging cases, including some refusals. It should be noted that eight of the non-completions in Florida were the result of migrant workers leaving the area without leaving forwarding addresses, while eleven of the non-completions registered for California could not be efficiently pursued because the residences of eighth-graders attending a highly exclusive private school were distributed over a forty-mile radius.

The quality of the interview cases that were done in the field was generally high, although, as noted before, the interviewers did have difficulty doing the special coding they were asked to do. Interviewers were told that for cases that were not refusals, they might call the respondent to arrange a time either to pick up a self-administered interview or to administer a personal interview. For a field pick-up case, the interviewer was asked to do a quick edit on the spot and to attempt to retrieve on missing answers to critical items. While frequently the latter edit was not done, often this was because the questionnaire was delivered to the interviewer in a sealed envelope.

As with the telephone interviewers, the field staff were apparently persuasive in acquiring critical item material from respondents. An examination of 22 field-interview and 22 telephone-interview questionnaires, all for the same set of schools, reveals that Question 1.41 (Respondent Locator Information) was not answered by just one respondent of each type of interview. Moreover, Question 7.1 (Family Income Information) was not also not answered by only one field-interview respondent and one telephone-interview respondent.

4.6.3.4 Recommendations for the Base Year Concerning Field Follow-Up

In the base year, the Student Survey and Parent Survey Follow-Up should be coordinated in such a manner that a Team Leader/Interviewer can be working on both at the same time. Training on the two aspects of the study can be expected to inform and improve performance on both. Interviewers should be assigned to NELS:88 full time. This would permit efficiency in the timing of the Parent Survey follow-up. Where necessary, interviewers could exchange parent cases with other interviewers in the area to assure that all interviewers have an even flow of work.

It would also be beneficial to all involved if the interviewer and her FM worked out a specific schedule for completing the caseload that would then be approved by the Parent Follow-Up Supervisor. This is particularly critical since in all likelihood, the interviewer will be heavily involved with the NELS:88 Student Survey at the same time she is working on the Parent Survey. Again, the problem of overscheduling of a given interviewer's time would be alleviated (but not eliminated) if interviewers worked full time on NELS:88.

4.7 Analysis of Parent Participation Rates

In order to devise more effective contact and follow-up materials for the base-year NELS:88 Parent Survey, it is useful to examine the response rates of the parents of the field-test sample under various categorizations. We begin by presenting the final parent participation rates for all 34 schools in the Parent Survey. Two sets of completion rates are given. One considers parents of all students who were eligible to participate in the Student Survey, and the other considers parents whose children actually participated in the Student Survey (only these were followed-up). Next, we summarize these two sets of parent participation rates specifically for that subsample of 18 Parent Survey schools that were subject to the full four stages of parent follow-up. In the third part of the section, we present a summary of the final case dispositions of those parent cases in the 18 schools that failed to yield a completed parent questionnaire. In a fourth part, we draw comparisons of parent participation rates according to (1) Ethnicity (Hispanic, Asian/Pacific Islander, Core) (2) School Sector (Public, Catholic, Other Private), and (3) Parental Permission Required (Implied, Explicit). Finally, based on the material that has been presented, we offer suggestions for improving parent response rates in the base year.

4.7.1 Presentation of Final Completion Rates for All Parent Survey Schools

On the following page, we present the final completion rates in all NELS:88 Parent Survey schools. Completion rates are calculated by two formulas, previously designated as FORMULA I and FORMULA II. In both cases, the numerator is the number of parent questionnaires that were obtained completed. FORMULA I has as the denominator the number of students who were eligible to participate in Survey Day. Students whose names incorrectly appeared on the student roster as being eligible and students who became ineligible (dropped out, transferred out, etc.) between the time the roster was prepared and Survey Day are not included. FORMULA II has as the denominator the number of all students who participated in the Student Survey either on Survey Day or Make-Up Day.

SUMMARY:

FORMULA I:

$$\text{Response Rate for Parents of Eligible Students} = \frac{\text{N of completed parent questionnaires}}{\text{N of students eligible for Survey Day}}$$

FORMULA II:

$$\text{Response Rate for Parents of Surveyed Students} = \frac{\text{N of completed parent questionnaires}}{\text{N of students actually surveyed}}$$

As one can be seen from the table, very high response rates were obtained for most of the schools, particularly those that were subject to the full follow-up treatment (marked with an *). Two groups have several notable exceptions: OTHER PRIVATE SCHOOLS (Schools 51, 2, 3, 37, and 68) and the NEW YORK CITY PUBLIC SCHOOLS (54, 56, and 55).

The summary statistics are as follows:

FINAL PARTICIPATION RATE FOR ALL PARENT SAMPLE SCHOOLS FORMULA I (Base = parents of all children eligible to participate in Student Survey): 780/999 = 78.1%

FINAL PARTICIPATION RATE FOR ALL PARENT SAMPLE SCHOOLS FORMULA II (Base = parents of all children who participated in Student Survey): 770/922 = 83.5%

TABLE 4-4: PARENT COMPLETION RATES IN THE NELS:88 PARENT SURVEY SCHOOLS

School NORC ID	Survey Date	Number Parent Quex In	Number of Surveyed	Percentage Completed Surveyed	Number of Eligibles	Percentage Completed Eligibles
04*	2/3	25	28	89.2%	30	83.3%
39	2/3	29	30	96.7%	32	90.6%
73*	2/3	24	27	88.9%	30	88.9%
76*	2/3	28	29	96.6%	31	90.3%
38	2/5	25	29	86.2%	32	78.1%
36	2/10	17	17	100%	17	100%
50	2/10	31	36	86.1%	36	86.1%
72*	2/10	21	21	100%	26	80.8%
74*	2/10	25	25	96.2%	32	78.1%
05*	2/17	26	26	100%	30	86.7%
51	2/17	12	16	75%	17	70.6%
69*	2/24	23	25	92%	25	92%
12*	2/24	26	30	86.7%	31	83.9%
27*	3/3	26	30	86.7%	32	81.3%
02*	3/4	30	40	75%	48	62.5%
24*	3/4	29	29	100%	32	90.6%
28*	3/4	32	32	100%	33	97%
67*	3/5	20	20	80%	25	80%
29*	3/5	26	29	90%	32	81.2%
26*	3/6	25	28	86.2%	30	83.3%
01*	3/12	31	31	100%	32	96.9%
08*	3/12	29	30	96.6%	31	93.5%
49	3/17	25	31	80.6%	32	78.1%
43	3/18	24	29	82.8%	31	77.4%
7	3/18	26	30	86.7%	32	81.3%
25*	3/18	30	30	100%	32	93.8%
83	3/19	27	29	93.1%	32	84.4%
3	3/20	14	26	53.8%	29	48.3%
37	3/24	8	12	66.7%	14	57.1%
68	3/25	6	13	46.1%	13	46.1%
54	3/25	11	24	45.8%	28	45.8%
56	4/2	17	29	58.6%	32	54.8%
41	4/8	22	31	71%	32	68.8%
55	4/9	12	24	50%	30	40%

An asterisk (*) denotes a school that underwent the full set of follow-up procedures.

A more accurate indication of the completion rates we could expect to achieve in the base year is provided in the next subsection, which specifically considers the completion rates achieved in those schools that were subject to full follow-up.

4.7.2 Summary of Final Completion Rates for Schools Receiving Full Parent Survey Follow-Up

Below we provide summary statistics for those schools in which parent cases received the full follow-up treatment as necessary: the thank-you/reminder postcard, the prompt telephone call, the telephone interview and the personal interview. The schools that comprise this subset of the Parent Survey sample are identified by an asterisk after the School NORC ID number in the table on the previous page.

FORMULA I: PARENT PARTICIPATION RATE (base = all parents whose children were eligible to participate in the Student Survey)

FULL TREATMENT SCHOOLS: 476/562 = 84.7%

FORMULA II: PARENT PARTICIPATION RATE (base = all parents whose children participated in the Student Survey)

FULL TREATMENT SCHOOLS: 476/517 = 92.1%

These figures offer an indication of what we might expect to achieve in the base year when time will be sufficient to give all schools the full follow-up treatment. This assumes that the field-test sample proves representative of the base-year sample.

4.7.3 Summary of Final Case Dispositions for Non-Completions in Schools Receiving Full Parent Follow-Up

So as to consider methods by which response rates can be raised in the base year, it is of interest to examine the final dispositions of those cases that were not successfully completed in the field-test year. The cases for the eighteen schools that were subject to full follow-up treatment are again employed for this examination as a greater amount of effort was spent on these cases before a final disposition was assigned than was expended for the schools with the later Survey Days.

Cases outstanding for the eighteen schools at the end of the field-test included:

(1) 18 cases with code 51 = parent refused to participate in survey
(2) 9 cases with code 52 = parent was unlocatable
(3) 6 cases with code 53 = parent was unavailable
(4) 3 cases with code 54 = parent hostilely refused to participate

(5) 3 cases with code 55 = parent did not participate because of a language barrier
(6) 20 cases with code 56 = either no effort was made to pursue the case (11 cases) or parent promised to mail in the questionnaire but did not do so (9 cases). [Note: the unpursued cases were all for a single school, that which had parent residences dispersed over a forty-mile radius.]

In addition, the following final statuses were registered for the cases of parents of children who were eligible to be surveyed but were not:

(7) 20 cases with code 61 = parent refused permission for child's participation in Student Survey
(8) 15 cases with code 81 = child absent on both Survey Day and Make Up Day

The small number of cases that could not be completed because of a language barrier is particularly interesting. Interviewers reported that very often either the eighth-grader or another relative of the parent who was bilingual helped the parent complete the questionnaire.

Given that 21 out of 49 (42.9 percent) of the non-completions were explicit refusals, there is obviously considerable scope for improving refusal-conversion efforts in the base year.

As noted earlier, the nine cases in which the parents were unlocatable mainly involved migrant workers who had moved without leaving forwarding addresses. This category represents an excellent example of the situation in which the mail treatment fails in having the questionnaire reach the home -- all nine cases with this designation were Central Office Mail cases.

The 35 cases that had final dispositions of either 61 or 81 represent a segment of the parent sample that was not pursued in follow-up efforts in the field test but that will be pursued in the base year. Special approach techniques will need to be designed to persuade parents whose children were not surveyed in the base year to nevertheless participate in the Parent Survey. Since gaining the cooperation of particularly those parents who have denied permission for the child's survey participation will be extremely challenging, every possible effort should be made to minimize denials at the outset of the Student Survey.

4.7.4 Comparison of Parent Participation for Various Groupings

Continuing in the effort to identify problem respondents that may require special attention in the base year, we now examine the parent participation rates according to the following classifications: Ethnicity, School Sector, and Permission Type Required.

4.7.4.1 Ethnicity

Were there any strong differences in participation of parents whose children were identified on student rosters as being Hispanic, Asian-Pacific Islander, or Core (neither Hispanic nor Asian-Pacific Islander)?

Examination of the parent participation rates according to ethnicity is important for at least two reasons: (1) We feared that language difficulties might result in low participation in the survey on the part of minority group members, thus biasing the sample against recent immigrants and others of special policy interest in need of bilingual education; (2) We wanted to explore the implications of having only an English-language version of the Parent Questionnaire in the base year. No Spanish-language version of the questionnaire is budgeted. (Had we found the Spanish version to be necessary, we could have requested technical redirection of funds, but this would have meant robbing another component of the study.)

The results listed below are fairly surprising. Our expectation was that the response rates for the non-Core OBEMLA groups would be well below those for the Core segment. Clearly they are not. One must be cautious, however, in not overgeneralizing on the basis of these results. Sixty-three of the Hispanic students in the survey were attending two exclusively Hispanic private schools in Miami, Florida. The school personnel in both schools were extremely supportive of the study. It is possible that the mostly Cuban population that these schools represent possess characteristics not strictly generalizable to other Hispanic subgroups.

TABLE 4-5
COMPARISON OF PARENT PARTICIPATION RATES ACCORDING TO OBEMLA STATUS

A. FORMULA I Calculation:

	Questionnaires Received	Students Eligible	Percentage of Parent Participation
HISPANIC:	152	186	81.7%
ASIAN / PACIFIC ISLANDER:	61	79	77.2%
CORE:	562	735	76.5%

TABLE 4-5 (continued)

B. FORMULA II Calculation:

	Questionnaires Received	Students Surveyed	Percentage of Parent Participation
HISPANIC:	151	168	90%
ASIAN / PACIFIC ISLANDER:	61	72	84.7%
CORE:	553	684	80.1%

These results do not lend strong support to the idea that a Spanish-language edition of the Parent Questionnaire might be necessary in the base year. Nevertheless, we might consider preparing some contacting materials in Spanish and the desirability of providing a Spanish-language questionnaire should not be dismissed without more thorough examination. We should also devise some method for aiding the participation of the Asian/Pacific Islander segment of our NELS:88 sample. We might, for example, ask School Coordinators in those schools that have a large population of Asian/Pacific Islanders to identify people in the community who speak the various relevant languages and might be willing to help our parent respondents complete their questionnaires.

4.7.4.2 School Sector

Were there any strong differences among participation rates of parents whose children were attending Catholic, Other Private, or Public schools?

Examination of the response rates for parents of children in the various school sectors is extremely important since school sector is a major analytic variable and we do not want to encounter sample bias. This is particularly the case since we have oversampled the private schools to support comparisons of public and private schools.

As one can see from the results below, there is a wide variation in the response rates of the three sectors.

TABLE 4-6
COMPARISON OF PARENT PARTICIPATION ACCORDING TO SCHOOL SECTOR

A. FORMULA I Calculation:

	Questionnaires Received	Students Eligible	Percentage of Parent Participation
CATHOLIC:	157	174	90.2%
OTHER PRIVATE:	95	152	62.5%
PUBLIC:	522	673	77.6%

B. FORMULA II Calculation:

	Questionnaires Received	Students Surveyed	Percentage of Parent Participation
CATHOLIC:	156	170	91.8%
OTHER PRIVATE:	94	139	67.6%
PUBLIC:	514	615	83.6%

It certainly seems clear that we need to give special attention to gaining cooperation from both students and parents in the Other Private schools. The extremely high participation rates of the Catholic parents are very gratifying. We will certainly wish to draw attention to these response rates when attempting to bring Catholic schools into the NELS:88 base-year sample.

4.7.4.3 Type of Permission

Were there any strong differences in participation of parents whose children attended schools that required explicit and implied consent?

Throughout the NELS:88 Field Test, we encountered considerable difficulties with schools using an explicit form of parental consent. Although no easy answer is available, an interesting question is whether a school which chooses to use explicit consent, while only trying to protect the rights of parents, iis implicitly sending to the parents the message that there is something to be feared in giving cooperation. In any case, the results listed below offer support for our general argument that use of explicit consent should be avoided whenever possible.

TABLE 4-7
COMPARISON OF PARENT PARTICIPATION ACCORDING TO PARENTAL PERMISSION TYPE

A. FORMULA I Calculation:

	Questionnaires Received	Students Eligible	Percentage of Parent Participation
EXPLICIT CONSENT:	208	295	70.8%
IMPLIED CONSENT:	522	644	81.1%

B. FORMULA II Calculation:

	Questionnaires Received	Students Surveyed	Percentage of Parent Participation
EXPLICIT CONSENT:	208	265	78.5%
IMPLIED CONSENT:	512	600	85.3%

If, however, one omits from consideration the New York City public schools, all of which were required by the New York City Board of Education to use explicit consent, then the two EXPLICIT and IMPLIED response rates move closer together:

C. FORMULA I Calculation:

EXPLICIT CONSENT: 171/206 = 83%

D. FORMULA II Calculation:

EXPLICIT CONSENT: 171/188 = 91%

It should be noted that in most of the other schools where explicit consent was employed, the School Coordinators (and the Central Office Staff) put a great deal of effort into both tracking parental permission and encouraging the eighth-graders to participate in the Student Survey. Too, most of the parent cases for these other schools were subject to the full range of follow-up treatment.

4.7.5 Recommendations for the Base Year

The statistics cited above reveal many areas where improvements can be pursued in the base year. It seems particularly essential that we conduct preparatory research on two subjects: (1) discovering potential sources of support within the various types of Other Private schools, that is, identifying groups or individuals who might aid us in encouraging parent involvement with NELS:88; and (2) persuading officials of all schools--but particularly the New York City Board of Education--that explicit consent is an unnecessary burden that results in weak participation rates that seriously hamper scientific research. Further attention will be given to the second of these goals in the next section of this chapter which summarizes the problems we had in conducting the Parent Survey in New York City Public Schools.

4.8 New York City: A Special Case

The Parent Survey follow-up in New York City was extremely challenging. This section details the difficulties encountered.

4.8.1 Summary of Restrictions Placed on the NELS:88 Parent Survey in New York City

As was noted in Chapter One of this report, the New York City Board of Education placed several restrictions on the Parent Survey of NELS:88. They required that the letter that accompanied the Parent Questionnaire be rewritten to explain specifically why the income and locator information was being requested. Additionally, NORC was not permitted to seek telephone contact with the parents for the purpose of prompting return of questionnaires. No telephone or personal interviewing was allowed unless specifically requested by the parents themselves. NORC was permitted to provide a name and number that could be called should the respondent desire either of these two forms of questionnaire administration. Later it was agreed that if a parent had provided a telephone number in the locator section of the Parent Questionnaire, then NORC would be permitted to call the household to attempt to retrieve missing critical item information. Permission was also granted to send any reasonable written follow-up. The New York City Board of Education made available to NORC newly-updated parent address rosters.

4.8.2 Procedures Followed in Conducting the Parent Survey in New York City Public Schools

Three New York City public schools were included in the NELS:88 Parent Survey sample. Of these, two were designated for the Central Office Mail treatment and one was designated for the Student Take Home treatment. Questionnaires were distributed to parents of students of the New York City public schools identically to distribution in the other schools. The thank-you/reminder postcard was also mailed according to the usual schedule.

When initial returns of Parent Questionnaires proved to be extraordinarily weak (see Section 4.8.3), a careful comparison was made of the addresses the School Board had provided with those the sampled students had provided in the locator pages of the Student Questionnaire. Many discrepancies, several of them substantial, were found. Specifically:

Of the 77 cases that the Parent Survey encompassed, comparing addresses provided by the Board of Education and the student locator pages of the Student Survey:

- 14 addresses were completely different
- 17 addresses were identical as to street address but differed for city name (examples: Queens, N.Y. and Jamaica, N.Y.; South Ozone Park, N.Y. and Jamaica, N.Y.; New York City, N.Y. and Jamaica, N.Y.)
- 3 had unlike zip codes
- 13 had apartment numbers provided in the locator information but not in the school information
- 1 differed in zip code AND the mother's last name differed from that of the child's [Recall that questionnaires were addressed: (TO THE PARENTS OF: name of child)
- 8 showed a mother's last name that differed from that of the child, even though the address given was essentially correct

On the basis of these findings, about two weeks after the last Survey Day was held in these schools, remailings were done to all outstanding cases together with a follow-up letter that was designed to substitute for the prompting telephone call. Addresses used for that mailing were those provided by the students themselves, whenever such addresses and the original labels disagreed.

While one cannot know for certain which of two discrepant addresses was the correct one, of approximately twenty New York City Public School cases that have come in since the second mailing, the addresses provided by the parents in the Parent Questionnaire locator pages are exactly the same as those provided by their children in the Student Questionnaire locator pages in all cases.

4.8.3 Presentation of Response Rates in the New York City Public Schools

Using the "student surveyed" base, that is, Formula II, the following are the response rates that obtained at the time the second mailing was done in the New York Schools:

School 54 (four weeks after Survey Day): 7/24 = 29%
School 55 (two weeks after Survey Day): 6/24 = 25%
School 56 (three weeks after Survey Day): 11/29 = 37.9%

On the final day that questionnaires were sent to data processing (two weeks following calculation of the figures given above), the response rates were as follows:

School 54 (six weeks after Survey Day): 11/23 = 47.8%
School 55 (four weeks after Survey Day): 10/24 = 41.6%
School 56 (five weeks after Survey Day): 16/28 = 57.1%

Using the "student eligible" base, (Formula I), these are the response rates that obtained at the time the second mailing was done:

School 54 (four weeks after Survey Day): 7/28 = 25%
School 55 (two weeks after Survey Day): 6/30 = 20%
School 56 (three weeks after Survey Day): 11/31 = 35.5%

Two weeks later, these were the rates:

School 54 (six weeks after Survey Day): 11/28 = 39.3%
School 55 (four weeks after Survey Day): 10/30 = 33.3%
School 56 (five weeks after Survey Day): 16/31 = 51.6%

4.8.4 Recommendations for the Base Year Concerning New York City Public Schools

Every effort should be made to convince the New York City authorities to ease the restrictions now placed on the Parent Survey Follow-Up. In addition to the poor response rates documented above, the problem also exists that the New York City parents more often than usual omitted telephone numbers when filling in locator information, reducing the amount of retrieval that could be done. As can be seen elsewhere in this report, parents often were quite agreeable to changing their minds about answering some of the more sensitive critical items after they had had an opportunity to be reassured about confidentiality by a representative of NORC. It is doubtful that written communication can ever be as effective in this regard.

Even if we are successful in convincing New York City to let us have telephone contact with the parents, it is still critical that something be done to assure that we have highly improved addresses, particularly if a mail treatment is indicated. An argument for regularly having an Orientation Day approximately a week prior to Survey Day is that one could have students--who should already have parental permission granted by this time--provide up-to-date addresses prior to Survey Day.

In general, every effort should be made to allay any suspicions the New York City parents might have about the legitimacy of NELS:88. Possibly a letter originating from either the U.S. Department of

Education or the New York Department of Education might be included in the original Parent Packet.

4.9 Conclusion

The data collection segment of the NELS:88 Parent Survey Field Test met two critical goals: With only a very short time period in which to conduct follow-up on outstanding questionnaires, high completion rates were achieved. Moreover, much valuable information was gathered to inform the design of data collection for the base year.

Perhaps the most interesting result that emerged from the field test of the NELS:88 Parent Study was the effectiveness of having children carry questionnaires home to their parents. While many schools refused to provide parent address information necessary for NORC mailing, none of the schools expressed any dissatisfaction with allowing the eighth-graders to deliver parent questionnaires. In the base year, we will certainly need to maintain flexibility in response to schools' desires concerning parent questionnaire delivery. The STUDENT TAKE HOME, CENTRAL OFFICE MAIL and SCHOOL MAIL treatments could all be successfully employed to obtain high response rates, as our experience in the field test has amply demonstrated. However, the STUDENT TAKE HOME method would seem particularly promising as the principal method of parent questionnaire delivery for the base year.

While overall the rate of participation in the Parent Survey was high, for some specific groups the extent of participation was relatively low. Parents of children who attend non-Catholic private schools and parents of children who attend New York City Public Schools in particular appear to require special attention in the base year. On the other hand, if our results concerning Catholic-school parents and Hispanic-origin parents are generalizable, a considerable amount of extra attention may not need to be given to persuading members of these groups to participate in the NELS:88 Parent Survey. A more ambiguous result emerged for the participation rates of parents whose children attended schools that required an explicit form of parental permission for the child's participation in the Student Survey. When the New York City Public Schools were removed from consideration, the parent participation rates (figured either by Formula I or by Formula II) for the remaining explicit-consent schools differed little from those achieved in the schools using implied consent. However, as was pointed out in the original discussion, a great deal of time and expense were spent in raising both student and parent participation rates in the explicit-consent schools. Clearly, use of explicit consent should be avoided whenever possible in the base year.

An especially gratifying finding of our field test was how willing the parents of our sampled eighth-graders were to contribute to our study. A surprisingly large number of parents mailed in their questionnaires without being prompted at all. When interviewers did have occasion to contact parents, either for retrieving or prompting, they usually found the parents to be friendly and cooperative. Often parents used the opportunity of the telephone contact to convey compliments on NELS:88. The clear impression that we received was that the parents of eighth-graders care deeply about the quality of their children's educations and are most grateful that the federal government is sponsoring research that may help to enhance that quality.

CHAPTER 4B
PARENT QUESTIONNAIRE ANALYSIS

4.10 Introduction to the Parent Questionnaire Analysis

From the perspective of the Parent Questionnaire the purposes of the Field Test have been

- to compare different methods of distributing the questionnaire with respect to
    - overall response rate and
    - the response rates for critical items
- to examine the responses to individual items in order to
    - identify ambiguities or difficulties in wording or format
    - collapse response categories and refine items
- to compare parent and student responses on similar items

This report is organized roughly around these three purposes. Section 4.11 examines the returns realized from the three different methods of distributing the questionnaires. Section 4.12 examines the response rates to individual items, starting with the critical items and then considering the remaining items. Section 4.13 compares the responses of students and parents on similar items.

First a word should be said about the length of the questionnaire and, by implication, respondent burden. Questionnaire respondents were not asked how much time they spent completing the questionnaires.

This was an oversight. A pilot-test of the instrument prior to the field test, however, yielded estimates by respondents of between 20 and 40 minutes as the time it took them to complete the questionnaire (self-administered) and comment on the questions themselves. Timing information was obtained from the 36 individuals to whom the questionnaire was administered in its entirety on the telephone. (Telephone interviews typically take longer than self-administered questionnaires.) The average interview lasted 44 minutes, suggesting that the self-administered version may not need to be reduced by much.

The field test version of the questionnaire was intended to be about 20 percent longer than the target instrument, which, in turn, was intended to take 30 minutes to complete. The goal, then, is to reduce the length of the Parent Questionnaire by 20 percent at the most.

For the base year survey, a separate version of the parent questionnaire may be desirable for use by telephone interviewers.

4.11 Parent Response by Distribution Method

Parent Questionnaires were distributed in three different ways. Just under 400 (398) of the instruments were mailed directly to parents in advance of Survey Day. An additional number (157) were mailed by the school, not a planned strategy but one that was adopted when five schools refused to provide NORC with names and addresses of parents. The largest number (427) were given to students to give to their parents. The purpose of this exercise was to assess the effect of different means of getting questionnaires into the hands of the appropriate respondents on the rate of response. (NOTE: These figures differ slightly from those presented in Part A since determination of the parent sample differs in the two analyses. In the present analysis, all parents of eligible students who were mailed the questionnaire, either by NORC or the school, are considered a part of the sample. For the situation in which the child was to deliver the questionnaire, only parents whose children were actually surveyed are counted as being in the sample.)

By approximately twelve weeks after the first Survey Days took place, 609 questionnaires had been data processed at NORC. Some of the schools had had their Survey Days only a few weeks before. Of the 609 cases, 177 were from the group mailed by NORC, 136 were from among those mailed by the schools, and the remaining 296 were from those taken home by the students. An additional 119 questionnaires were received after the six-week mark. Because no efforts were made at retrieval of the later questionnaires, it is probably most useful to examine the returns, especially for critical items, in the light of the 609 cases. Table 4-8 summarizes the information for both the 609 cases and the total of 775 that will ultimately represent the full dataset for the parent questionnaire.

TABLE 4-8
OVERALL RESPONSE RATE BY DISTRIBUTION METHOD

METHOD	ELIGIBLE	RETRIEVAL ATTEMPTED SAMPLE (n=609)		ENTIRE SAMPLE (n=775)	
		n	%	n	%
NORC MAILED	398	177	44.5	269	67.6
SCHOOL MAILED	157	136	86.6	150	95.5
STUDENT DELIVERED	427	296	69.3	366	85.7
	982	609	62.0	775	78.9

(NOTE: These figures differ slightly from those presented in Part A since, for technical reasons, the NORC author reclassified a small number of cases. Nevertheless, the conclusions reached by the NORC author and the ETS author are essentially identical.)

Based on the 609 cases, and based solely on the numbers of questionnaires available for analysis, there appear to be substantial differences in the response rates achieved using each method. Questionnaires mailed by the school fared best, having been returned in 87 percent of the cases. While this response rate is impressive, it should be treated cautiously, since there were only five schools that employed this treatment and the five were, in one sense, self-selected. Student delivery produced a 70 percent response rate. The questionnaires mailed by NORC were returned in less than half of the cases, 44 percent.

These results suggest that parents may be less likely to pay attention to a mailing from an unknown survey organization than they are to something sent by their child's school, either through the mail or delivered by their children. At the same time, the school-mailed questionnaires were not distinguishable from the NORC-mailed instruments in any obvious way. It is difficult to know whether the higher response rate for questionnaires mailed by the school compared with those delivered by students is due primarily to parents' interpreting as more serious anything that is mailed them by the school, or to students' failure to deliver the questionnaire in all cases. The results do suggest that distribution through the school may be preferable to direct mailing to parents by NORC. While mailing directly to parents by the school appears to be preferable to sending the questionnaires home with students, the method did not receive a fair test since the schools that used it were self-selected. Having the school mail the questionnaires or having the students deliver them does eliminate the often difficult chore of convincing schools to provide parents' addresses. (It is not clear, however, that all schools would be willing to mail the questionnaires. The school is asked to prepare address labels, a task which the School Coordinator might view as excessively burdensome.) Finally, the returns clearly demonstrate that having students take the questionnaires home is a viable method of delivery, one that does not jeopardize the response rate in any significant fashion.

In almost all cases of returned questionnaires, the questionnaire was delivered to and completed by the appropriate person. According to the responses to Question 1.B, in only two cases did the respondent indicate that the child lives with him or her less than half of the time. The vast majority of the respondents are parents: 75.1 percent of the questionnaires were completed by the child's mother and 13.7 percent by the child's father.

Few of the critical items seem to have been affected by distribution method. That is, examining post-retrieval response rates for critical items by distribution method, there are some but not many substantial differences. Most of the items that differ by distribution method favor the school as agent of distribution. These differences are discussed below, in the context of a detailed examination of the critical items.

4.12 Response Rates To Individual Items

4.12.1 Critical Items

Part One of the Parent Questionnaire is the longest section and accounts for about half of the questions asked in the field test form of the instrument. This section is mainly about the family background of the student. Many of the questions were used in HS&B.

Critical items in this section ask about the relationship of the respondent to the student (Q.1.1A), and for how much of the time the student lives with the respondent(Q.1.1B); for the ethnic origin (Q. 1.9) and race (Q.1.10) of the respondent; whether the respondent speaks a language other than English (Q.1.22), and how well the respondent understands, speaks, reads, and writes a non-English language (Q.1.24) and English (Q.1.25); what language is usually spoken in the respondent's home (Q.1.26); what language is spoken to the child (Q. 1.27) and what language the child speaks to the respondent at home (Q. 1.28); the highest level of education completed by the respondent (Q. 1.32); the employment status of the respondent (Q.1.34) and the kind of work (s)he does (Q.1.35); the number of times the child has changed school since (s)he entered first grade (Q.1.39); and locating information in the form of the names, addresses, and telephone numbers of the respondent (Q.1.41), a close relative (Q.1.42), a close family friend (Q.1.43), and the high school the child is expected to attend (Q.1.44).

Part Two contains only four questions, asking about the parent's aspirations for the child, the parent's assessment of influences on the child's choices about education, and whether the parent perceives the child to have any handicapping conditions. Critical items in this section are the questions about aspirations (Q.2.1) and handicapping conditions (Q.2.4).

Part Three is about the child's school history and current school experience. Critical items in this section ask whether the child has ever received special services for a variety of handicapping conditions (Q.3.2), whether the child is considered to have a behavior problem in school (Q.3.3), and whether the child is enrolled in special language programs (Q.3.12A and 3.12B), in special services for the orthopedically handicapped (Q.3.12C), or in special education services for slow learners (Q.3.12D).

Part Four of the Questionnaire has to do with the child's life at home specifically as it may relate to school behavior and performance. Critical items in this section include questions about who is at home when the child returns from school (Q.4.12) and the amount of time the child is without adult supervision during the day (Q.4.13).

Parts Five and Six are about the parents' contacts with the child's school and their attitudes toward the school. These sections contain no critical items.

Part Seven asks questions about the family's financial status and the extent of their planning for the child's future education. Critical items in this section include questions about family income (Q.7.1) and whether, in what form, and how much money has been set aside for the child's postsecondary education (Q.7.6).

Table 4-9 shows the percentage of invalid responses for each of the critical items in the Parent Questionnaire. Invalid responses include missing data (blanks), refusals, multiple responses (to single-response questions), and respondent indicated Don't Knows.

TABLE 4-9
PERCENT INVALID RESPONSE FOR ALL CRITICAL ITEMS*

Item #	Content	Percent Invalid
1.1A	R's relationship to student	2.7
1.1b	Amount of time child lives with respondent	0.2
1.9	R's origin or descent	3.8
1.10	R's race	0.4
1.22	Does R speak a non-English language?	0.4
1.24A	R's ability to understand a non-English language	59.9
1.24B	R's ability to speak a non-English language	61.3
1.24C	R's ability to read a non-English language	60.7
1.24D	R's ability to write a non-English language	60.7
1.25A	R's ability to understand English	55.4

Item #	Content	Percent Invalid
1.25B	R's ability to speak English	55.7
1.25C	R's ability to read English	55.7
1.25D	R's ability to write English	55.7
1.26	Language spoken at home	56.3
1.27	Language spoken to child at home	54.3
1.28	Language child speaks at home	54.3
1.32	Highest level of education completed by R	12.5
1.34	R's employment status in last week	0.6
1.34A	R's activity last week (if "no" to 1.34)	75.0
1.34B	Has R ever held a regular job (if "no" to 1.34)	73.4
1.35B	Type of work R normally does	**
1.39	School changes for child since first grade	1.2
1.41	R's name, address and telephone number	***-1
1.42	Relative's name, address and telephone number	***-2
1.43	Family friend's name, address and telephone number	***-3
1.44	Where child is expected to go to high school	***-4
2.1	How far R expects child to go in school	8.2
2.4	Handicapping conditions:	
2.4A	- Visual handicap	3.9
2.4B	- Hearing problem	3.9
2.4C	- Deafness	4.2
2.4D	- Speech problem	3.9
2.4E	- Orthopedic problem	4.2
2.4F	- Specific learning problem	2.8
2.4G	- Other health problem	7.5
3.2	Child received special services for:	
3.2A	- Visual handicap	3.6
3.2B	- Hearing problem	3.8
3.2C	- Speech problem	4.0
3.2D	- Deafness	2.5
3.2E	- Orthopedic problem	4.2
3.2F	- Specific learning problem	3.2
3.2G	- Other health problem	8.4
3.3	Is child a behaviour problem at school?	0.6
3.12	Is child enrolled in special services?	
3.12A	- Bilingual program	2.1
3.12B	- English as a second language program	4.1
3.12C	- Services for orthopedically handicapped	3.8
3.12D	- Special education services for slow learners	3.8

Item #	Content	Invalid Response
4.12	Who is home when child returns from school?	
4.12A	- Both parents	16.1
4.12B	- Respondent	10.2
4.12C	- R's spouse	18.0
4.12D	- Other adult relative	17.4
4.12E	- Sitter	19.7
4.12F	- Adult neighbor	19.7
4.12G	- Older sibling	16.3
4.12H	- Younger sibling	18.2
4.12I	- No one	22.8
4.13	Time child spends unsupervised	1.0
7.1	Family income	
7.1A	- From wages	7.1
7.1B	- From own business	17.3
7.6	Is family saving money for child's education	3.3
7.6A	If "yes" to 7.6, how?	
.6AA	- Savings account	61.8
.6AB	- Insurance policy	65.9
.6AC	- Savings bonds	68.3
.6AD	- Investments	67.3
.6AE	- Trust fund	70.2
.6AF	- Additional job	69.4
.6AG	- Something else	80.7
.6B	- Amount set aside for child's education	50.9
.6C	- How much when child finished high school?	53.2

*Includes blanks, refused, multiple responses, and Don't Knows
**Opened responses, treated elsewhere
***Different response rates for different data elements, see text.

The remainder of this section describes the critical items with invalid responses amounting to five percent or more of the eligible respondents. Although five percent is a low threshold, it was chosen to provide the most stringent evaluation of the critical items. Possible reasons for the response rate are presented along with recommendations for revisions to the items.

Questionnaire Respondents

Questions 1.1A and 1.1B, identical in form and substance to questions used in HS&B, ask for the relationship of the respondent to the student and whether and for how much of the time the student lives with the respondent. Both parts of the question are critical items, and both elicited high rates of response. Most of the questionnaires (75.1 percent) were completed by the child's mother. An additional

13.7 percent were completed by the child's father. A little more than 2 percent of the respondents gave more than one answer to the question of who completed the questionnaire. It may be that in some cases, parents collaborated to provide the information. It may be useful to insert a statement in the instructions that tells respondents that, while it is all right to collaborate, one parent or the other must be represented in the responses to such questions as respondent's education and occupation.

In all but two cases, the child lives with the respondent more than half of the time.

Respondent's Race and Ethnicity

Questions 1.9 and 1.10 ask for the respondent's national origin or descent and for the respondent's race, respectively. The questions represent a deviation from the earlier HS&B format, in which ethnicity and race were treated in a single question. Question 1.9 is concerned mainly with Hispanic and Asian subgroups. The response rates to the current versions of the questions were within acceptable limits. The respondent group was 23 percent Hispanic, 9 percent Asian or Pacific Islander and 63 percent Other. This is not quite consonant with the results from question 1.10, responses to which describe the group as 16 percent Black, 68 percent White, 7.9 percent Asian or Pacific Islander, and 7.7 percent Other.

Language Use

Question 1.22 asks whether the respondent speaks a language other than English. It generated a high rate of response (only 0.4 percent invalid responses). Speakers of a non-English language comprise 40.5 percent of the population.

The question introduces a skip pattern in which the non-English speakers are asked a series of questions about the language spoken, their language proficiency, and their patterns of language use with the study child. The relatively high rates of "invalid" data, therefore, from Questions 1.24, 1.25, 1.26, 1.27 and 1.28, reflect the fact that the majority of the respondents (61 percent) do not report speaking a non-English language. In fact, although there were 238 respondents who reported speaking a language other than English, there were as many as 243 responses to the four parts of Question 1.24, which immediately follows the skip and asks about the respondent's fluency in the non-English language. This indicates some small amount of confusion in responding to the skip. The remaining critical items, 1.25, 1.26, 1.27, and 1.28, all to have been answered only by those who reported speaking a non-English language, attracted as many as 278 respondents, more than the 243 self-reported non-English speakers. Each of these questions appears on a separate page, increasingly distant from the original Question 1.22 that introduces the skip. These questions all include "English" in the stem or among the options, making the confusion understandable. Revised versions of these questions,

Questions 1.24 and 1.25, which ask about the respondent's fluency in both the non-English language and English, should therefore be set off more clearly with a reminder to "Answer only if you speak a language other than English." Questions 1.26, 1.27, and 1.28, which ask what language is usually spoken in the home, which language the respondent speaks to the child, and which language the child speaks to the respondent, should either be set off in the same fashion as Questions 1.24 and 1.25, or should be asked of ALL respondents (no skip).

Spanish is the non-English language spoken most frequently by respondents. Just under 25 percent of the total group of respondents report speaking Spanish to some degree. This group represents 60 percent of those who report speaking a non-English language and 28.5 percent of the total group.

Level of Education

Question 1.32 asks for the highest level of education completed by the respondent. The question is identical in form to one that appeared in the Parent Questionnaire for HS&B in 1980 and in an earlier version as well. A total of 12.5 percent of the eligible respondents provided invalid responses, most of them (11.6 percent) multiple responses. An additional two parents refused to respond. This was a high rate of nonresponse compared with the questions contiguous with this one.

In fact, this pattern of multiple responses was common across all of the items that ask for highest level of education attained by anyone (respondent, spouse/partner, etc.). The problem can be handled easily by simply using the highest level indicated in the case of multiple responses.

Employment and Occupation

Question 1.34, which asks whether the respondent was working full- or part-time within the week prior to completing the questionnaire, garnered a high rate of response (only 0.4 percent invalid responses). Approximately three-fourths of the respondents, most of whom are mothers, report holding jobs.

Questions 1.34A and B were to be answered only by those who indicated that they were not working. A total of 154 individuals responded to Question 1.34; 152 responded to 1.34A, and 162 to 1.34B, indicating a problem once again, in the case of 1.34B, with the skip pattern. Questions 34A and 34B both start, "IF NO, ... " The latter question might be improved by introducing it in one of the following ways: "If you do not now have a job, ..." or "If you answered "No" to Question 34, ..."

Question 1.35B is an open-ended question that asks respondents to name their occupation. This was compared with answers that parents gave to Question 1.35F, a long closed question that requests respondents to classify their occupations using a list of job categories. Though there may be some difficulties with the parent version of the occupation question, even with these difficulties, a comparison of a subsample of open-ended and closed-ended parent responses revealed a higher degree of correlation than a similar comparison of student-reported data. By fine-tuning the occupation questions in the Parent Questionnaire, the chances of obtaining accurate data from the most knowledgeable respondent should improve. Thus, it seems imperative that the Parent Questionnaire ask parents about their occupations in some form.

Question 1.39 asks how many times the child has changed schools since entering first grade. The response rate was high. In about 40 percent of the cases, the child attended only one school; at the other end of the continuum, 6.5 percent of the parents reported that the child attended five or more schools.

Locator Information

Questions 1.41, 1.42, and 1.43 ask for locator information, namely the names, addresses, and telephone numbers of the respondent, a close relative, and a family friend, respectively. Different data elements in these questions invited different rates of response and the three questions themselves were responded to at different rates. For example, 98.8 percent of the respondents provided their own last name and 98.7 percent provided their first name. Some 98.4 percent of the respondents provided a street address, but only 97.7 percent (still an acceptable proportion) provided the name of the city where they live. And so on. All of the respondent information was within acceptable limits, except that 6.2 percent of the respondents failed to supply an area code with the telephone number. (The area code was provided consistently less frequently than any of the other data elements in these three questions). It is recommended that, in the final version of these questions, the space for area code be made more clearly a part of the space allotted for the telephone number, as follows:

FIELD TEST VERSION: (   )   ____________________
Area Code   Number

RECOMMENDED REVISED
VERSION: (   )____________________
Area Code Number

Response was somewhat better to all of the data elements requested in Question 1.41 than to any of the data elements requested in Question 1.42, and far better than to any of the data elements requested in Question 1.43. In other words, respondents were somewhat less likely to provide the names, addresses, and telephone numbers of close relatives than they were to provide their own, and far less likely to provide the names, addresses, and telephone numbers of close family friends than relatives' or their own. Invalid responses comprised 8.8 percent of the eligible response to a request for a relative's last name, 11.1 of the response to a request for a relative's address, and

6.4 percent for a relative's telephone number. Over a third of the respondents (36.6 percent) failed to provide the name of a family friend, and fewer still provided the address or telephone number of a friend.

Student's High School

Question 1.44 asks for the name and address of the high school the child is expected to attend, and for the school's telephone number, if that is known. A total of 39 individuals (6.4 percent) failed to provide the name of a high school, and 12.5 percent did not name the city in which the high school is located, both critical items. It is entirely within the realm of possibility that 39 families don't know or haven't yet decided where their child will attend high school. There is no discernible structural reason for the response rate to the question.

The Child's Future: Parent Expectations

Part Two of the Parent Questionnaire contains two critical items, one about the respondent's expectations for the child's education, the other about specific handicapping conditions. Question 2.1, which asks about the respondent's expectations, received ineligible responses in 8.2 percent of the cases. Much of this ineligible response was multiple response (7.5 percent). It is curious that the rate of ineligible response was considerably lower (4.4 percent) among the respondents who were mailed the questionnaire by the school, and slightly higher (10.1 percent) among those who received the questionnaire from their children.

A similar question in HS&B in 1980 ("How far in school do you want your son/daughter to go?") was answered by virtually all of the parents who responded. With retrieval, the rate of nonresponse was less than one percent.

The parents surveyed in the field test have high expectations for their children. Forty-one percent of those who responded expect their children to complete college, and another 30 percent expect them to earn graduate or professional degrees.

Question 2.4, which asks whether the child has any or all of a list of handicapping conditions, for the most part garnered acceptable response rates (invalid responses ranging from 3.9 to 4.2 percent). The one exception was to part g of the question which asks if the child has "Other health problem (Write in)_________." Perhaps the need to write something in deterred respondents. For the base-year survey, the write-in requirement should be eliminated, since its main function in the field test was to identify major categories of response not treated in the existing list. The proportions of students with the listed problems were quite low, less than 2 percent in the case of all but specific learning disabilities (7.5 percent) and "Other health problems" (4.5 percent).

Child's School History

Part Three of the questionnaire contains three critical items. Question 3.2 asks whether the child has ever received special services for a list of handicapping conditions. The format is identical to the format of Question 2.4, described above, with the exception of the addition of a "Don't Know" response option for each condition. The response patterns are parallel to those described above. Nonresponse generally ranged from 2.5 to 4.2 percent. Again the one exception is the "Other health problem" choice. Here too, the respondent was instructed to write in the particular health problem. Nonresponse to this one part of the item was 8.4 percent. The write-in feature of the item will be eliminated in the revised questionnaire. The proportions of students reported to have received the listed services was low in most cases, except for speech problems (7.5 percent) and specific learning problems (8.5 percent).

Question 3.3, which asks whether the child is considered to have a behavior problem at school, attracted a high response rate (nonresponse was only 0.6 percent). According to the respondent, 6.2 percent of the children represented by the parent response are considered to have a behavior problem at school; an additional 1.9 percent of the parents reported that they don't know whether their child has a behavior problem.

Question 3.12, which is about the child's enrollment in bilingual and ESL (English as a Second Language) programs, special services for the orthopedically handicapped, and special education for slow learners, also achieved response rates of 95 percent or greater. About 10 percent of the respondents reported children enrolled in bilingual or bicultural programs, 3 percent in ESL classes, virtually none in special services for the orthopedically handicapped, 3 percent in special services for slow learners, and 14 percent in gifted and talented programs.

Family and Home Environment

The two critical items in Part Four of the questionnaire have to do with who is home when the child returns from school, and with the amount of time the child spends after school without adult supervision. Nonresponse to all parts of Question 4.12 was high. The question lists nine different scenarios, ranging from both parents being at home when the child returns from school to no one being at home when the child returns from school. Nonresponse for these nine sub-items ranged from 10.2 percent for the respondent ("You") to 22.8 percent for "No one." By way of contrast, the rate of nonresponse to Question 4.13, which asks how much time the child spends after school without adult supervision, was only 1 percent. The high rate of nonresponse to all parts of Question 4.12 might be considered a reflection of respondents' feeling that these questions are invasions of their privacy, but that explanation is weakened by the relatively high response rate to Question 4.13. In any case, if Question 4.13 can be considered a satisfactory substitute for Question 4.12, the latter could be eliminated.

There is considerable variation in the actual response to the various parts of question 4.12. For example, among those who responded, 58 percent of the respondents reported being at home when the child returns from school, 20 percent reported another adult relative at home, 7 percent an adult neighbor. In 33 percent of the complete cases, older siblings are at home when the child returns from school, and in 44 percent of the cases younger siblings are there. Clearly, Question 4.12 offers more information and more possibilities (through cross-tabulations and other combinations of the sub-parts of the item) for creating a picture of the after-school supervision accorded the child than does question 4.13.

Parts Five and Six of the questionnaire contain no critical items.

Part Seven contains critical items that ask about total family income (Question 7.1), and about money set aside for the child's education (Question 7.6).

Total Family Income

The total income question, which was used previously in HS&B, has two parts, asking separately for income from "wages, salary, commissions, or tips from all jobs, before deductions for taxes or anything else" and for income from "work you did on your own or in your own business or farm (net income, that is, income after expenses.)" The income question is thus both complex and personal. The rate of invalid response, therefore, while higher than the level considered acceptable here, is a surprisingly low 7.1 percent for the wages part and a higher 17.3 percent for the business-and-farm part. In 1980, when it appeared in the parent questionnaire for HS&B, the wages item had a nonresponse rate of 9 percent, and nonresponse to the wages-and-farm part amounted to 11.2 percent.

It is difficult to sort out the possible sources of nonresponse. Again, it is possible that some respondents find the question intrusive. In fact, the rate of outright refusal to respond was higher for Question 7.1 (5 percent) than for any other question in the questionnaire. Examining the question itself, it is obvious that the format, the ideas, and the wording are also forbidding. (The current question is identical to the one asked in HS&B, and should really be maintained in that form if at all possible.) For both parts of the income question, nonresponse was lowest (5.7 percent for 7.1A and 14.1 percent for 7.1B) when the student delivered the questionnaire to the respondent, and highest (9.6 and 20.9 percent, respectively) when NORC mailed it, suggesting that there may be some fear that the information could be put to unknown uses.

Among those who responded, the modal category for income from wages, salary, etc. was $35,000 - $49.999; the median occurred somewhere between $25,000 and $34,999. Most respondents (59 percent of those who responded) reported no income at all from their own business or farms.

4.12.2. Noncritical Items

This section deals with all of the remaining questions in the questionnaire. For noncritical items, a threshold of 8 percent invalid responses was adopted. Noncritical items with greater than 8 percent missing data will be described in some detail, with some discussion of possible reasons for the nonresponse. The discussion includes recommendations for revisions to items with unsatisfactory response rates.

Section One: Family Background

Questions 1.2, 1.3, and 1.4, all intended to provide information about family size, ask, respectively, about the total number of dependents of the respondent and his/her spouse, the number of siblings the target child has, and the number of older siblings the target child has. All of these items produced acceptable rates of response.

Questions 1.5A and 1.5B ask for the numbers of the respondents' children who are now in high school and who are now beyond high school. Both items have invalid responses in greater than 10 percent of the cases (12.3 and 14.8 percent, respectively). This relatively high rate of invalid data is undoubtedly a reflection of the number of respondents who have no children in high school or beyond. The nonresponse can be eliminated by adding the direction "Enter a number or '0'" in each case. We recommend that these directions be added.

Question 1.6 asks whether any and how many of the respondent's children dropped out of high school before graduation. The question was intended to assess the extent to which there is a precedent in the family for leaving school early. The question involves a skip, in which the number of children who dropped out of school is asked only of those who answer the initial question positively. There is a marginal response rate (8.3 percent missing) to the "yes/no" part of the question, and a very high rate of missing data for the question that asks for the number. However, this is a function of the skip pattern. Of the 44 individuals who reported having a child drop out of school before graduation, 42 provided a number. It is interesting that the nonresponse for this question was lowest (5.1 percent) when the school mailed the questionnaire, and highest (9.8 percent) when the student delivered the questionnaire.

Questions 1.7, 1.8 and 1.8A ask, respectively, for the respondent's sex, year of birth, and marital status. All three items have acceptable rates of response. Question 1.8B, which asks for the spouse's year of birth, had invalid data in 22.6 percent of the cases.

Most of the nonresponse is attributable to the skip pattern, since 21.7 percent of the respondents to question 1.8A reported that they are not now currently married. Obviously a few respondents reported birth dates for former or nonexistent spouses.

Questions 1.11 and 1.12 ask about the child's mother's place of origin and the year that she came to the United States to live. Two-thirds of the respondents report having been born in the United States. The low response rate for Question 1.12 (70 percent invalid responses), therefore, reflects an appropriate use of the skip pattern by most of the respondents to Question 1.11. (A follow-on question, 1.12, which asks for the mother's occupation before she came to the U.S., lost only .03 percent of the potential respondents, that is, those who had been born elsewhere.) Similar patterns were found for Questions 1.14 and 1.15, which ask about the father's place of birth and year of U.S. residency, and Questions 1.17 and 1.18, which solicit the same information for the child.

Questions 1.19, 1.20, and 1.21 collectively present a skip pattern within a skip. These questions ask whether the child attended school outside of the United States (1.19) and, if so, the grades the child completed outside the U.S. (1.20) and the grade the child was assigned to when he/she started school in the U.S. (1.21). These three questions, by virtue of the skip pattern initiated with Question 1.17, were to have been answered only by respondents who indicated that the child had been born outside of the U.S., a total of 79 individuals or 20.0 percent. However, a total of 145 respondents (an extra 66 individuals) answered Question 1.18. Although 100 of these respondents said that the child did not attend school outside the U.S., it is not possible to tell which are the legitimate respondents to the question. This confusion jeopardizes the responses to questions 1.20 and 1.21. While the actual numbers of those circling any of the options--a through j-- for Question 1.20 and the number that responded to question 1.21 look reasonable, the fact that so many extra people answered Question 1.18 casts some degree of suspicion on the responses to the remaining questions in the series. These three questions are good candidates for omission from the base-year survey.

Question 1.23 asks what language the respondent uses most often, and is one in a series of questions about language use. The question follows a critical question (Q. 1.22) that asks if the respondent speaks a language other than English. Question 23 asks what language the respondent uses most often. The high rate of nonresponse reflects a reasonably appropriate use of the skip pattern in that 39.1 percent of the respondents to question 22 indicated that they speak a language other than English and 39.9 percent of the field-test sample respondents answered question 23.

Question 1.29 is another in the language use series within the skip pattern. It asks what other language is spoken in the respondent's home. The nonresponse rate of 57.3 percent is a fairly good match with the 39.1 percent who report speaking a language other than English, indicating that the skip pattern was accurately used by respondents. However, a fair number of respondents selected more than one language in response to this question, in which the instructions were ostensibly to select one. Since it is not inconceivable that some speakers of a non-English language speak more than one non-English language, the question should be revised to make such a possibility an acceptable response.

Questions 1.30 and 1.31 ask about religious preference and marital status, respectively. Both have acceptable rates of response.

Question 1.33 asks for the highest level of education attained by the respondent's spouse or child's other guardian. The question was previously used in HS&B. Despite the fact that there is an option to circle if the child does not have another guardian (selected by 5.6 percent of the respondents), nonresponse to this item amounted to 16.7 percent, again because of a high rate of multiple response (11.4 percent). Again, this should be handled by using the highest level indicated in the case of multiple response. The rate of nonresponse, incidentally, was somewhat lower (11.0 percent) when the school mailed the questionnaire to the respondent, and somewhat higher (21.0 percent) when the student delivered the questionnaire.

Question 1.35 is a multi-part question that asks about the respondent's present or most recent job. It is part of a skip pattern with Question 1.34, a critical item considered earlier, and is supposed to be answered only be individuals who are currently working or who have held a regular job in the past. The question was used in HS&B in 1980. It is intended to contribute to a measure of socioeconomic status. Several aspects of the job are asked about: self-employment vs. working for someone else (35A); job title (35B, open ended); job responsibilities (35C, open ended); name of employer (35D, open ended); nature of workplace (35E, open ended); and a categorical response list that characterizes the job (35F). Responses to the two fixed-choice segments of the question were marginal: nonresponse was 8.8 and 9.0 percent, respectively, to questions 35A and 35F. About half of the nonresponse to question 1.35F is accounted for by multiple responses, indicating either that the respondent had difficulty deciding on a single appropriate category or, perhaps, actually holds two jobs. The possibility of more than one job should be allowed for in the instructions to the question, either by having the respondent answer in terms of the job that occupies the greater amount of time, or in terms of both jobs.

Questions 1.36 and 1.37 repeat the employment questions for the respondent's spouse or child's current guardian. The initial question (1.36, was spouse/guardian working full or part-time during the week prior to the survey?) was not answered by 14.5 percent of the sample. Nonresponse to the fixed choice follow-on questions (1.37A and 1.37F) amounted to 21.9 and 24.6 percent, respectively. There is no way to tell how much of the nonresponse reflects the absence of a spouse (only 76 percent or the respondents reported being married) or other guardian, how much is because the respondent simply doesn't know, and how much is attributable to other sources. At the very least, a revised version of the question might include a check-off for the absence of a spouse or other partner.

Question 1.38 asks for the highest level of education attained by the respondent's father. It is identical in format to the other education items in the questionnaire. The rate of ineligible response was an unacceptable 13.2 percent, which is fairly consistent with the performance of other education items. In this instance, only 3.5 percent of the ineligible response is attributable to multiple responses.

Question 1.40 asks how long the child has been at his/her current school. The response rate was high.

Section Two: The Child's Future

Questions 2.2 and 2.3 ask who is expected to influence the child's plans for high school and who will have the most influence with respect to the child's plans for high school. Both items had acceptable response rates, the former higher than the latter.

Section Three: The Child's School Life

Question 3.1 is a multi-part question that asks about the child's attendance at day care, nursery school, Head Start, kindergarten, and extended day programs. Despite the fact that there is a "Don't Know" option, the response rates ranged from acceptable (7.4 percent nonresponse for kindergarten) to unacceptable (25.1 for extended day). The most productive parts of the question in terms of response rate were 3.1B (nursery or preschool) and 3.1D (kindergarten). For all parts of the question, nonresponse was least for the group of questionnaires mailed by the school.

Question 3.4 follows critical item 3.3 (which asks whether the child is considered to have a behavior problem at school) and asks whether the child was ever considered to have a behavior problem at school. The response rate was high.

Questions 3.5, 3.6, and 3.7 ask whether the child ever skipped a grade, either at the parent's request (Question 3.5) or because the school recommended it (Question 3.6), and, if the child was skipped, what grade(s) he/she skipped (Question 3.7, a skip). Response rates to the first two questions were high, and the skip pattern was used appropriately.

Questions 3.8, 3.9, and 3.10 are a parallel set having to do with whether the child ever repeated a grade. Response rates were similarly high and the skip pattern was used appropriately.

Question 3.11 asks whether the child was read to before he/she could read him/herself. The response rate was marginal; 8.7 percent failed to respond.

Question 3.13 asks whether the child is enrolled in a gifted or talented program. If he or she is, the respondent is asked to react to a multi-part question (3.14) about the potential benefits of such a program. The response rate on Question 3.13 was acceptable; however, many more individuals responded to Question 3.14 than indicated that their children were enrolled in a gifted and talented program (229 compared with 83 who were legitimate respondents to the question). If question 3.14 is retained, the skip pattern should be made clearer, or the question should be asked of all respondents.

Section 4: Home Environment

Questions 4.1 and 4.2 ask, respectively, how many books the respondent read during the past year and whether there is a computer in the home that is used for educational purposes. Both items garnered high rates of response.

Question 4.3 asks whether the child attends each of a series of out-of-school classes. Nonresponse to all parts of the question was higher than the acceptable level, ranging from 10.7 to 17.3, and rising to 38.1 for the "other" option. This was a "yes/no" question.

Questions 4.4 and 4.5 ask whether the respondent has rules for the child about television, and whether the respondent enforces rules about grades, homework and household chores. Response rates to both questions were marginally acceptable--nonresponse amounted to 7.5 percent in both cases.

Questions 4.6, which asks how satisfied the respondent has been with the child's education so far, was completed by all but 1.2 percent of the respondents. This question was also used in HS&B in 1980.

High response rates were also the norm for questions 4.7 through 4.11, touching on helping the child with homework, and talking with the child about school, his/her report card, and plans for after high school. Questions 4.4, 4.9 and 4.10, were also used in HS&B.

Question 4.14 asks whether the respondent and the child borrow books from the library, attend concerts, and go to art and science museums. Rates of nonresponse to each of the eight parts of the question range from 4.8 percent for child's borrowing books from the public library to 7.9 percent for child's attendance at art museums. These are acceptable response rates. Response rates to all parts of this question were highest for the group of questionnaires mailed to the respondents by the school.

Section Five: Parent's Contact With Child's School
Section Six: Parent's Opinions About Child's School

All of the questions in Section Five of the questionnaire, which ask about the respondent's contact with and participation in the child's school, have acceptably high rates of response. Similarly, all parts of the single multi-part question in Section Six that asks for the respondent's attitudes toward the child's school and the child's relationship to it have acceptably high rates of response.

Section Seven: Family Income and Educational Costs

Section Seven treats the dual issues of family finances and educational costs. The income question has been discussed along with other critical items. Question 7.2, whether there is one parent or two in the household, was responded to by 98.5 percent of the sample.

Question 7.3 asks for the amount the respondent currently owes, how much money he/she has in current savings, and how much he/she had in savings at the same time last year. These questions employ the same format as the total family income question, asking respondents to choose a categorical response from a list and enter the letter of that response in a box. The three parts of the question each have nonresponse rates of less than 3 percent, indicating that the respondents are able to use the format successfully.

Question 7.4 introduces a complicated series of questions (that includes Questions 7.5A and 5B-a through 1) about current expenses for education. Question 7.4 asks whether the respondent is currently paying private or religious school tuition, college tuition, or for tutoring for any of his/her children. The response rates to the three parts of this question vary from acceptable (nonresponse = 5.8 percent) for the private and religious school tuition part, to 11.8 percent nonresponse for the college tuition part, to 13.3 percent nonresponse for the tutoring part. If the response is "yes" to any one of the three, the respondent is directed to indicate (again using a list of ranges of dollar amounts) the total amount spent during the current school year for all expenses represented (Question 5A) and to check any or all of the sources of money used (from a list) to meet the expenses. Because of the complicated contingency in this item (respondents might be routed to Question 7.5 by virtue of having checked one, two, or three educational expenditures), it is difficult to tell whether the skip pattern was used appropriately. A total of 316 respondents indicated at least one type of educational expenditure, and a total of 263 individuals responded to Question 5A. (Not surprisingly, the number that responded to any of the choices in Question 5B was much smaller.) This may or may not be an accurate reflection of the number who actually reported educational expenditures.

The last question, Question 7.7, presents a series of ten statements related to the family's beliefs and expectations about financing higher education for the target child. These questions were used in HS&B. Nonresponse ranged from 5.9 to 7.0 percent of the sample, all acceptable levels.

4.13 Comparisons of Data Gathered Via Parent and Student Questionnaires

Some questions were asked of both parents and students. One purpose of this seeming redundancy was to assess, for purposes of the field test, which was the better respondent. Another purpose was to assess the reliability of the information provided.

Socioeconomic Status: Parent Education and Occupation

By far the most important of the questions asked of both sets of respondents are the questions that ask about parental occupation (Questions 1-35 and 1-37 in the Parent questionnaire) and education (Questions 1-33 and 1-34). Their importance rests with the fact that the items contribute to a measure of socioeconomic status which, in turn, is expected to be related to many of the outcomes assessed in NELS88.

It is often the case that young students are unaware of their parents' educational attainments. In the National Assessment of Educational Progress (NAEP), students at the seventh-grade/13 year-old level were considerably more likely than students in eleventh-grade/17-year cohort to choose the "I don't know" option in the parent education question. (NAEP did not ask about parents'occupation.) Consistent with this finding, questions about parents' education in the NELS:88 field test student questionnaire showed high rates of nonresponse.

While nonresponse to the parent education questions on the Parent Questionnaire was higher than the acceptable maximum, the nonresponse was considerably lower than nonresponse to the same questions on the Student Questionnaire. Students' frequent use of the "Don't Know" option suggests that they really don't know, and that the question is better asked of parents at this age.

NORC created a composite SES variable using mother's and father's occupations and mother's and father's education, separately for the data obtained from parents and the data obtained from students. In addition, the results were tabulated separately and compared for each of the data elements separately.

Because of the high rates of nonresponse to the education items on the part of both parents and students, only about half of the parents' education data could be matched with student data (393 of the 775 cases, representing 51 percent of the father's education data and 420 or 54 percent of the mother's education data), of which 232 and 240, respectively, were in agreement, and 161 (41 percent) and 180 (43 percent) disagreed.

Similarly discouraging levels of disagreement were observed for the occupation questions (See Section 3.2.7.1 for a more detailed description of the nature of the discrepancy.) Even after a recoding procedure was introduced by NORC to reduce the amount of disagreement, the percentage of disagreement for individual categories of father's occupation varies from 0 to 64, and for mother's occupation from 33 to 83.

Using a composite variable serves to increase the number of matches that can be made (625 of the 775 extant parent cases), allowing for the construction of an SES measure in 81 percent of the cases. It should be noted that relatively more parents (54 percent) than students (35 percent) supplied all four of the data elements that make up the composite, and that the unmatched cases are due mainly to the absence of data from students. Moreover, the rate of disagreement, 28 percent, is still quite high. Common sense and the field test data together suggest that parents are better informants than eighth-grade students about their (the parents') education and occupation.

The critical nature of the SES variable and the data elements that contribute to it, combined with the comparative superiority of parents over students in providing these data accurately, suggests a sample design that maximizes the participation of parents, even at the expense of a shorter questionnaire. At the very least, the occupation questions in the parent questionnaire should be made critical and subject to additional retrieval efforts.

Early Educational Experiences

Parents and students were asked parallel questions about the student's early educational experience, specifically whether (s)he attended day care, nursery school, Head Start, kindergarten, or extended day programs (Question 3-1.a through e in the Parent Questionnaire). Parent and student responses are presented in tabular form in section 3.2.7.2. The crosstabulations reveal a fair amount of disagreement between parents and students on these items. Much of the disagreement is accounted for by students' use of the "Don't Know" option in cases in which their parents are able to provide yes or no answers. There is also a higher rate of all forms of nonresponse for students than for their parents (except in the case of extended day programs, to which there was nonresponse amounting to 25 percent of parent respondents and 39 percent of students). It is therefore recommended that parents be the primary source of the information requested in this question in the base year. Since the extended day category engendered such confusion, it should be better defined or dropped entirely.

Special Services

Parents and students were both asked sets of questions about special services, one set about past involvement in various special services (Question 3-2.a through g in the Parent Questionnaire) and another about current involvement in such services (Question 3-12.a through d). In the specific instances of special services for orthopedic handicap (Questions 3-2.e and 3.12.c in the Parent Questionnaire) and special services for learning problems (Questions 3.2.f and 3.12.d), there are close correspondences between the questions asked parents and students. NORC conducted both inter-item consistency checks for similar items within questionnaires, and inter-respondent consistency checks for similar items across the two questionnaires (see section 3.2.4). With respect to orthopedic handicap, parents were consistent in their responses 100 percent of the time. However, comparing student and parent responses, consistency was high only when both parent and student answered the questions negatively, that is, to indicate that the student had not received nor was at the time of the field test receiving such services. When students said they were enrolled in such services, their parents disagreed with them 100 percent of the time. NORC telephoned 10 of the pairs with inconsistent responses and discovered that parents and students had interpreted the questions differently. NORC concluded that parents had more accurately interpreted the meaning of the question than had their children.

The learning disabilities question contains a slight variation in the Parent and Student Questionnaires, although inter-item and inter-rater analyses were conducted as if they were identical. Parents were internally consistent overall more than 99 percent of the time, but their internal consistency in the case of affirmative responses to the question amounted to only 62.5 percent. This was, however, higher than the internal consistency of students, who disagreed with themselves 72 percent of the time. There was even greater inconsistency between parents and students in their reporting of services for learning disabilities, amounting to disagreements in the case of affirmative responses of 50 and 72 percent.

Summarizing across these analyses, it would appear that parent response to the specific questions about the student's receipt of services for orthopedic handicaps and specific learning disabilities is more reliable than student response. These questions are therefore better asked of parents. (By implication, parents may be better informants about all special services.)

4.14 Conclusions and Recommendations

On the basis of analyses of patterns of response, patterns and levels of nonresponse, and comparisons between data collected via parent and student questionnaires, some items emerge as candidates for revision and others for possible elimination, depending on the importance of the information desired. A discussion of each of the questionable items follows.

Question 1.1A, a critical item which asks about the relationship of the respondent to the student, garnered some (small) number of multiple responses, suggesting that parents or guardians may be collaborating in completing the questionnaire. The multiple response would not be destructive were it not for the fact that the identity of the respondent is established in this question and will later be matched with the education and occupation questions which ask for "your" (highest level of education) as distinct from "your spouse/partner's" (highest level of education). It is recommended that some instruction be added to the question or at the beginning of the questionnaire about identifying a single respondent even if two or more individuals complete the questionnaire together.

Questions 1.5A and 1.5B, noncritical items, ask how many of the respondent's children are in high school and college, respectively, and had higher than acceptable rates of nonresponse. It is recommended that the instruction "Enter a number or '0'" be added to the stem to ensure that the nonresponse really does reflect the case of no children in a given category.

Questions 1.17 through 1.21 are about whether the child attended school outside the United States and, if (s)he did, about what grade(s) were completed and his/her grade placement upon entry. The series contains a complicated series of skips and there is evidence that the pattern was not used well by the respondents. These questions should be simplified and/or clarified. Perhaps not all of the information is necessary.

Question 1.22 asks about language use in the respondent's home and introduces a skip pattern in which speakers of a non-English language are asked a series of questions about the language(s) used and the frequency of use. The skip pattern seems to have engendered some level of confusion, since more people responded to the questions about non-English language use than should have considering the number who indicate such use in Question 1.22. Several of the questions within the skip pattern appear on new pages, and could be interpreted as applying to all respondents. It is therefore recommended that all of the questions within the skip be introduced with a phrase like, "If a language other than English is spoken in your home, ... ".

Question 1.29 is part of the skip pattern and asks what other language, in addition to the non-English language specified earlier, is spoken in the respondent's home. This question attracted multiple responses although it was intended as a single-response item. Since it is not unreasonable to assume that more than one language may be spoken in some homes, it may be well to change the question to one that allows for multiple responses.

Question 1.33 asks about the respondent's education. It is a question from HS&B and a critical item. It and several other questions that use the same general format ("What is the highest level of education you (or someone else) have completed?") attracted the highest rates of multiple response of any question in the Parent Questionnaire (12 percent in the case of respondent's education and 11 percent in the case of spouse/partner's). Since the question should be retained essentially intact for reasons of continuity, it is recommended that multiple responses be dealt with simply by counting only the highest level checked.

Question 1.35 is a multi-part question that describes the respondent's occupation. The item was used in HS&B and the data it provides will contribute to a measure of family SES. In an earlier section, the performance of this item was compared with the results from a similar item asked of students, leading to the conclusion that, at least in the case of eighth-grade students, parents are better sources of information about their own occupations than are students. This is particularly true in the case of Question 1.35F, which asks the respondent to select from a list of categories the one that comes closest to describing his/her job. Comparing the categorized responses with the responses provided to 1.35B, which asks for the same information in open-ended fashion, correspondence between the two sources was better for parents than for students. For this reason, it is recommended that Question 1.35F (and perhaps the entire series) be made a critical item, subject to intensive efforts at retrieval in the case of nonresponse.

Question 1.35F also attracted multiple responses in almost 5 percent of the cases. It is entirely possible that any given respondent may have more than one job. Some instruction about multiple jobs should be provided in the stem of the item.

Questions 1.36 and 1.37 are parallel to Questions 1.34 and 1.35, but ask about the spouse/partner's job. It is recommended that these items be made critical along with items 1.34 and 1.35. Since the majority of the questionnaires are completed by the mother, and since father's occupation is frequently more influential than mother's in determining family SES, father's occupation seems a critical piece of information. Subjecting father's occupation to retrieval along with mother's should maximize the chance of getting at least one parent's occupation to contribute to the family SES variable. It goes without saying that any revisions to Questions 1.34 and 1.35 should also be made to Questions 1.36 and 1.37.

Requests for locator information received variable response. The area code was the most frequently omitted single piece of information, and a suggestion for a revised format has already been recommended. Since the locator information is central to the purpose of the questionnaire, it is assumed that the locator questions (1.41, 1.42, and 1.43) should remain essentially as they are. Locator information about a close family friend (Question 1.43) is the least likely to be provided, and should therefore be the top candidate for elimination, if any of the locator questions can be eliminated.

If the rate of nonresponse is any indication, many parents do not know where their children will be attending high school. Since this piece of information is an important element in the locator series, Question 1.44, which asks it, should remain a critical item, subject to retrieval.

Question 2.1, which asks how far the parent expects the child to go in school, has the same problem with high rate of multiple response as other questions about education. The same tactic should be employed with this item, that is, the highest level marked should be taken as the response in cases of multiple response.

Question 2.3 is a candidate for elimination. It asks who the parent feels is most influential in deciding a student's plans for high school. About five percent of those who responded gave more than one answer. If the item is retained, the stem should be reworded to emphasize the fact that a single response is desired.

In Question 2.4, and again in its parallel, Question 3.2, part g of the question should be eliminated, or the write-in feature of it should be eliminated.

In Question 3.1, the "Extended day" option should either be dropped or defined.

Question 3.11, which asks whether the child was read to before (s)he could read him/herself, is a candidate for elimination. Nine percent of the respondents did not answer this question.

Questions 3.13 and 3.14 are about gifted and talented programs and involve a skip pattern that was not used correctly by respondents. If Question 3.14 is to be retained (and the relevance of the question to the NELS:88 outcomes is not clear), either the stem should make it clear that it is to be answered only by those whose children are in such programs, or it should be opened to all respondents.

Question 4.2, which asks about the child's enrollment in out-of-school classes, had marginal rates of response, as did Questions 4.4 and 4.5, which ask about rules governing the child's behavior. These questions are candidates for elimination.

Question 4.12, which asks about specific individuals who might be at home when the child returns from school, should be simplified by grouping the individuals into categories ("adult family member", for example) or, preferably, eliminated.

Much of Section Seven, which deals with financial information, is problematic. Response rates are low and skip patterns are poorly adhered to. Question 7.1, which asks for family income, has been discussed elsewhere. It is a critical item, and will contribute to the SES measure. Moreover, it was used in HS&B. It should therefore be retained in its present form and strong efforts should be made to retrieve information not provided. Questions 7.4 and 7.5 together form a complicated skip pattern which was not appropriately used. If the item is to be retained (and a case may be made for eighth grade being too early to ask about the impact of current educational expenses on the postsecondary education plans for a given child), the skip instructions should be reworded and reformatted.

5. FIELD TEST RESULTS OF THE SCHOOL AND TEACHER SURVEYS[1]

The National Education Longitudinal Study of 1988 (NELS:88) seeks to gather trend data about critical transitions experienced by young people as they develop, attend school, and embark on careers. NELS:88 focuses on a sample of students enrolled in the eighth grade in the 1988 academic year. During the base-year of the study, the sample of students will be administered a student questionnaire and a cognitive test battery intended to measure cognitive growth over time in reading, mathematics, science, and social studies. These data are to be supplemented by a school survey directed at the principals in schools where the participating students are enrolled, a survey of selected teachers of participating students, and a parent survey of a sample of participating students' parents. In addition, other components of the above surveys provide supplemental details concerning language minority students, gifted and talented students, and mathematics and science curriculum.

National Opinion Research Center (NORC) is joined by Westat, Inc. and the Educational Testing Service (ETS) in the design and conduct of NELS:88. Westat's responsibilities focus on the implementation of the school and teacher survey components.

This section of the Field Test report provides a discussion of the activities related to the development and Field Testing of the School Questionnaire and Teacher Questionnaire. Relative to each questionnaire, this discussion presents an overview of the questionnaire design process, purpose and content of each questionnaire, identification of the respondent samples for the questionnaires, questionnaire administration procedures, data collection procedures, data processing of completed questionnaires, and an analysis of item responses and nonresponse. Recommendations that should be considered in the conduct of the base year study are presented throughout the description of each topic detailed below.

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[1] This chapter was authored by Rocco P. Russo, Ph.D., and Cindy Gray of Westat, Inc., 1650 Research Boulevard, Rockville, MD. Editorial assistance was provided by Heather Banks.

5.1 Design of the School and Teacher Questionnaires

Westat project staff initiated work on the development of the school and teacher questionnaires immediately following the start-up of the study in February 1986. Content outlines for each questionnaire were prepared and submitted to the Center for Education Statistics (CES) for review in March 1986 and were discussed by the National Advisory Panel in April 1986.

The school questionnaire outline focused on gathering general descriptive information about the educational setting or environment associated with the individual students who have been selected for participation in NELS:88. In keeping with the data needs targeted by NELS:88, emphasis was placed on gathering longitudinal data that would be useful in explaining future outcomes as assessed in followup survey efforts. Overall, the school description is intended to address the academic climate in terms of items such as enrollments and educational offerings as well as specific school policies. Thus, the following information areas were targeted for the school questionnaire:

- General school characteristics;
- Grading and/or testing structure used by the school;
- Program and facilities information;
- School climate;
- Parent interactions/involvement;
- Teaching staff characteristics; and
- Respondent data for followup.

The teacher questionnaire outline stressed the acquisition of information that may help account for the sampled students' subsequent development, particularly in the educational arena. As in the school questionnaire, emphasis was placed on meeting the longitudinal student data needs targeted by NELS:88. However, data which could be used in cross-sectional analyses of students' educational attainments at the eighth grade level were also considered. The following three major topic areas were identified:

- Teacher Impressions of Individual Students -- Specific information related to the teacher's impressions of school-related interests, aptitudes, and achievements of individual students.
- Curriculum Content -- Data about the name, ability track, curriculum, text, etc., for each course currently being taught by the teacher to one or more of the sampled students.
- Teacher Background and Activities -- General information about the teacher's demographics, qualifications and experience, current teaching status, duties, instructional methods, and influence over school and classroom policies.

Based on the recommendations provided by CES staff and the National Advisory Panel (NAP), each questionnaire content outline was revised and resubmitted to CES in May 1986. The revised content outlines provided greater detail relative to specific questionnaire items, and where plausible, suggested item stems and related item response categories. These expanded content outlines were discussed at the second National Advisory Panel meeting held in June 1987. As a result of these discussions, specific guidelines and priorities were established and were utilized in the development of draft questionnaires.

Westat project staff developed complete drafts of the school and teacher questionnaires which were submitted for CES review on June 27, 1987. In coordination with the CES Interdivisional Review Committee, CES staff identified specific recommendations for revisions of the draft questionnaires preparatory to submission of the questionnaires for clearance by FEDAC/OMB.

Suggested revisions were incorporated, and supporting documentation was prepared for consideration by FEDAC. After incorporating revisions suggested by FEDAC, updated instruments and supporting documentation were provided to OMB for consideration on September 18, 1986. Final clearance was granted by OMB on December 8, 1986, allowing the school and teacher questionnaires to be formatted and printed in preparation for their administration during the Field Test.

5.2 Purpose and Content of the School and Teacher Questionnaires

The primary purpose of the School Survey is to identify general descriptive information about each participating eighth grade school regarding the school's student population, teaching staff, policies, program offerings, and overall educational climate as perceived by the school principal. Information obtained through the administration of this questionnaire is intended to assist in analyzing the learning environment and experiences of eighth grade students and to assist in distinguishing among different patterns of eighth grade schools and the effects of such patterns on the transition of students to the tenth grade and beyond.

The school questionnaire is designed to be responded to primarily by the school principal. In some cases, factual data may be provided by an individual who extracts such information from school files under the guidance of the school principal. Directions accompanying the questionnaire do indicate that portions of the questionnaire request factual data that may not be readily available from school records. In such cases, informed estimates are acceptable responses to such questions. Finally, standard assurances of confidentiality and anonymity are provided.

The questionnaire contains the following eight parts:

- Part 1 - School Characteristics requests general information about the characteristics of the participating school in order to confirm its classification in the NELS:88 sample.
- Part 2 - Student Characteristics seeks information about the general characteristics of the school's student population.
- Part 3 - Teaching Staff Characteristics identifies general information about the professional teaching staff, related to group characteristics and operational organization within the school.
- Part 4 - School Policies and Practices requests information about the operational policies and practices of the school.
- Part 5 - Grading and/or Testing Structure seeks information about the grading and testing practices of the school.

- Part 6 - School Programs identifies information about the general academic and co-curricular programs that are available to eighth grade students enrolled in the school.

- Part 7 - School Climate identifies the overall morale and attitude of the students and professional staff regarding the school environment as perceived by the school principal.

- Part 8 - School-Parent Interactions collects information regarding the school's practices designed to involve parents in the educational process.

Specific items contained in each section of the school questionnaire can be identified by reviewing a copy of the school questionnaire provided in Appendix 5A.

The primary purpose of the teacher survey is to link information regarding specific teacher characteristics and practices to information about the characteristics and educational outcomes of the participating eighth grade students, in order to acquire an understanding of the effects of teaching on longitudinal student outcomes. Thus, data are collected that address teacher qualifications, specific course activities, curriculum exposure, and student-specific characteristics as judged by teachers. The overall design of the teacher survey reflects the four curriculum areas targeted by the overall goals established for NELS:88. These areas are: mathematics, science, English, and social studies.

The teacher questionnaire is designed to be responded to by teachers of the sampled eighth grade students. However, it is important to note that the teacher survey is not targeted at acquiring teacher-level data. Rather, it is targeted at identifying student-level data as reported by teachers, pertaining to specific eighth grade students and the mathematics, science, English, and social studies courses in which they are enrolled. Teachers are asked to respond to the questionnaire items relative to a specific list of sampled eighth grade students and to designated classes in which the sampled students are enrolled. The standard assurances of confidentiality and anonymity are also included.

The questionnaire contains three distinct sections:

- Part I - Student Information asks the identified teachers to indicate which of the sampled students they have had in their classes during the current academic year, and for those students enrolled in their class(es), to evaluate whether or not the student has had various school-related problems and handicaps.

- Part II - Class Information requires the teacher to respond to a series of course-related questions regarding a distinct set of classes they have been identified as teaching to one or more of the sampled students. Subsections of items within this segment of the questionnaire apply to the four specific curriculum areas (i.e., mathematics, science, English, and social studies), enabling teachers to respond to these subsections as appropriate.

- Part III - Teacher Background and Activities requests teachers to provide general background information about themselves and their school.

Specific items contained in each section of the teacher questionnaire can be identified by reviewing a copy of the teacher questionnaire in Appendix 5B.

5.3 Respondent Samples for the School and Teacher Questionnaires

Identification of the sample of respondents for the school questionnaire was quite straightforward, following the identification of schools involved in the Field Test. Each principal of the participating schools in the NELS:88 Field Test was requested to respond to the school questionnaire. In total, 51 school questionnaires were administered, and 46 completed questionnaires were returned, resulting in a 90 percent response rate. Of the remaining questionnaires, three principals (6%) refused to return the questionnaire, and two principals (4%) were categorized as nonrespondents. Additional details related to the school questionnaire response rates are presented later in this chapter.

In comparison to the school questionnaire, identification of the sample of respondents for the teacher questionnaire proved to be more complicated. The design established for the identification of teachers was based on the need to obtain information about the NELS:88 sample students' school-related characteristics and experiences, especially those that might account for the students' educational development. The teacher survey design is based upon the student sample and the four pre-established curriculum areas (i.e., mathematics, science, English, and social studies) that are the primary focus of NELS:88. At each school, approximately 30 students were sampled for participation in the Field Test. To achieve the objective of "linking information from the teacher to data about individual students in the

NELS:88 sample," two teachers were identified as respondents to the teacher questionnaire for each student.

Selection of respondents to the teacher questionnaire for each student is based on the assignment of two curricula areas per school included in the Field Test sample. Specifically, each Field Test school was randomly assigned one of the following combinations of curriculum areas:

- Mathematics and English;
- Mathematics and Social Studies;
- Science and English; or
- Science and Social Studies.

Therefore, at any given school, each sampled student's current teacher in each of the two designated curriculum areas was selected to receive a teacher questionnaire.

This selection procedure was designed to assure representation of Mathematics or Science curriculum areas and also of English or Social Studies in all Field Test schools. The curriculum area combinations of English and Social Studies as well as Science and Mathematics were not components of the design. In addition, the design achieved balanced representation of the four curriculum area combinations across the school variables of control (i.e., Catholic, Other Private, and Public) and level (i.e., Elementary, Middle, Junior-Senior High School). To a lesser degree, the design achieves balance across the five states covered by the Field Test sample.

Finally, using this design, the number of teacher-respondents per school was expected to vary depending on the size and structure of the eighth grade at the particular school. It was anticipated that small schools with self-contained classes at the eighth grade level could have as few as one or two applicable teachers, while larger, departmentalized schools could have as many as seven to ten teacher-respondents.

Implementation of the teacher-respondent selection procedure for the Field Test, began with listing the 52 sampled schools in order by state (i.e., CA, FL, IL, NY, and TX) within level within control. Next, the four curriculum area combinations were ordered in a random sequence (i.e., 1-Mathematics and English, 2-Science and Social Studies, 3-Mathematics and Social Studies, and 4-Science and English) and a random start combination was selected (i.e., combination 3-Mathematics and Social Studies). Beginning by assigning the start combination to the first school in the ordered listing of schools, curriculum areas were assigned to schools in repeating cycles of combinations, 3, 4, 1, 2.

Table 5-1 presents the results of the selection procedure on a school-by-school basis as well as overall totals by control and level. Overall, each curriculum combination was randomly assigned to 13 of the 52 Field Test schools. (As noted in a preceding section, a final sample of 51 schools participated in the Field Test following substitution procedures for refusal schools.)

Following the selection of the student sample in a given Field Test school and the random assignment of the curriculum combination areas, a matrix of information was obtained from school records. Exhibit 5-1 is the Class Schedule Matrix used in the teacher-respondent selection process. The matrix consisted of 32 rows (one per sampled student) and two columns (one for each assigned curriculum area). For each cell in the matrix, that is, for each student-curriculum combination, the following information was entered:

- Name of the student's current teacher in that subject;
- Weekly schedule for the class (e.g., period 3);
- Unique identifier for the student-teacher-subject combination (e.g., M-1 for the first student's current math class); this designation would be used for all other sampled students who are in that same class-scheduled combination; and
- Course title.

Appendix 5C provides a copy of the detailed instructions used by the school coordinators to complete the Class Schedule matrix. An assessment of the problems confronted in the completion and processing of this matrix is presented in a later section of this chapter. (See Section 5.4.2).

Table 5-1

NELS:88 Pretest: Assignment of Schools to Curriculum Area Combinations for Teacher Questionnaire*

School No.		1 M&E	2 S&H	3 M&H	4 S&G
CA	1			x	
	2	x			
	3		x		
	4	x			
	5				x
	6		x		
	7			x	
	8				x
	9	x			
	10		x		
	11	x			
	12			x	
	13				x
	14	x			
FL	15				x
	16			x	
	17		x		
	18			x	
	19				x
	20	x			
	21		x		
	22		x		
IL	23	x			
	24				x
	25			x	
	26				x
	27	x			
	28			x	
	29		x		
	30				x
NY	31		x		
	32			x	
	33			x	
	34	x			
	35			x	
	36				x
	37	x			
	38	x			
	39		x		
	40			x	
	41				x

School No.		1 M&E	2 S&H	3 M&H	4 S&G	Total
TX	42				x	
	43		x			
	44		x			
	45			x		
	46				x	
	47	x				
	48		x			
	49	x				
	50		x			
	51			x		
	52				x	
TOTAL		13	13	13	13	52
Catholic		1	1	2	2	6
Other Prv		2	2	1	1	6
Public		10	10	10	10	40
Elem.		3	3	3	3	12
Middle		3	3	3	4	13
(J)HS		7	7	7	6	

*1. M&E - Math and English
2. S&H - Science and Social Studies/History
3. M&H - Math and Social Studies/History
4. S&E - Science and English

Exhibit 5-1

Class Schedule Matrix

NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988: FIELD TEST
NORC, UNIVERSITY OF CHICAGO

CLASS SCHEDULE FOR SAMPLED EIGHTH GRADE STUDENTS

NORC/4455
12/86

SCHOOL NUMBER: |___|___|

SCHOOL NAME: ____________________

ADDRESS: ____________________

STUDENT NUMBER	SUBJECT 1:				
	CLASS		TEACHER		
	PERIOD OR HOUR	COURSE TITLE	Class NO.	LAST NAME	TEACHER NO.
001					
002					
003					
004					
005					
006					
007					
008					
009					
010					
011					
012					
013					
014					
015					
016					
017					
018					
019					
020					
021					
022					
023					
024					
025					
026					
027					
028					
029					
030					
031					
032					

STUDENT NUMBER	SUBJECT 2:				
	CLASS		TEACHER		
	PERIOD OR HOUR	COURSE TITLE	Class NO.	LAST NAME	TEACHER NO.
001					
002					
003					
004					
005					
006					
007					
008					
009					
010					
011					
012					
013					
014					
015					
016					
017					
018					
019					
020					
021					
022					
023					
024					
025					
026					
027					
028					
029					
030					
031					
032					

TEACHER NUMBER AND FULL NAME

NUMBER	LAST	FIRST	MIDDLE/MAIDEN
01			
02			
03			
04			
05			
06			
07			
08			
09			
10			

FORM COMPLETED BY:
____
(name)

DATE FORM COMPLETED:
______/______/______
(month) (day) (year)

QUESTIONS -- CALL DALLAS NANNA COLLECT AT (312) 702-8998.

Results of the use of this sampling scheme for the pretest indicated that the range of the number of teacher-respondents per sampled school was 1 to 15, with an average number of 5.9 teacher-respondents per school.

A total of 302 teachers in the 51 participating Field Test schools were requested to respond to the teacher questionnaire. Of these, 284 completed and returned questionnaires to Westat. Of the remainder, seven teachers (2%) refused to return the questionnaire; three teachers (1%) were categorized as nonrespondents; two teachers (1%) were no longer employed by the school; and six teachers (2%) were sampled in error. Thus, a response rate of 96 percent (284/302-6) was achieved. Additional details related to the teacher questionnaire response rates are presented later in this chapter.

5.4 Questionnaire Administration Procedures

Following the printing of the approved school and teacher questionnaires for the Field Test and identifying the sample of respondents, questionnaire administration procedures were initiated. Distribution of the school and teacher questionnaires was accomplished by preparing a unique "school package" for each participating Field Test school. Each package contained the required number of teacher and school questionnaires, related cover letters, and instructional materials for the return of the school package to Westat.

In order to prepare each unique school package, several sources of pre-survey information had to be acquired and processed. To meet the study objective of linking school and teacher data to individual students, a listing of school questionnaire respondents, teacher-respondents, classes attended by the sampled students, etc., with linkages maintained between data sources, was required. The materials needed to provide this pre-survey information were:

- A Class Schedule form completed by the school coordinator. This form identified the teachers and classes to be included in the study. This information was used to produce the teacher labels and list of each teacher's sampled classes.
- School file, sent on computer tape from NORC to Westat. This file contained all information about the school, including ID number, name, address, coordinator, and survey date.

- Student file, sent on computer tape from NORC to Westat. This file contained the ID numbers and names of the sampled students.

- Team leader information, sent to Westat by NORC. This information included team leader names and addresses, and school assignments.

The administration of the school and teacher questionnaires required three stages: collection of the class schedule matrix, collection of school, student and team leader data, and preparation of school questionnaire packages. Each stage is discussed below.

5.4.1 Collection of Class Schedules

Generating a list of teacher-respondents and list of classes for each teacher-respondent required the completion and return of the Class Schedule matrix by the school coordinator. Once NORC had completed the student sampling for a Field Test school (as described in Section 1.2.5), the school coordinator was asked to complete a Class Schedule matrix/form (Exhibit 5-1). On this form, coordinators recorded information about classes each sampled student attended in the two curriculum areas randomly pre-assigned to the school. Class information recorded on the form included: period or hour, course title, teacher name, and teacher ID number. Detailed instructions provided to school coordinators are contained in Appendix 5C.

The Class Schedule serves two purposes. The first purpose is to identify the teachers who teach classes in the designated curriculum areas to one or more of the sampled students included in the study. Each teacher, listed at the bottom of the Class Schedule by the school coordinator, is asked to complete a teacher questionnaire.

The second purpose of the Class Schedule is to identify, by teacher, the specific class each student attends for each assigned curriculum area. This information is used to produce, for each teacher-respondent, a list of classes for which the teacher is asked to provide descriptive information in Part II of the questionnaire.

The Class Schedule also provides the mechanism to link teacher ratings of students, and descriptions of curriculum and practices, to individual sampled students. The materials and procedures used to generate and collect Class Schedules are discussed in the following sections.

Materials

In November 1986, Westat submitted a draft of the Class Schedule and accompanying instructions to NORC for review. After some revisions, the form and instructions were approved by both organizations. Once approved, the materials were finalized and prepared for distribution to the Field Test schools. (See Appendix 5C for copies of Class Schedule and instructions.) After mailing the first Class Schedule package, NORC project staff telephoned the school coordinator to obtain her opinion of the materials and solicit suggestions for improvement. The school coordinator indicated that she understood the instructions and had no difficulty completing the Class Schedule. Therefore, no additional changes were made to the materials.

Each Class Schedule package included the following materials:

- Cover letter, drafted by NORC, explaining the purpose of the study and the importance of the Class Schedule.
- The Class Schedule form, printed on oversize (14 x 17 inch) paper. This size allowed coordinators to record complete class information on a single page.
- Instructions for completion of the Class Schedule. These instructions included illustrations of a sample Class Schedule at each stage of completion. In addition, directions were included for handling unusual situations, such as two teachers for one class.
- Roster of sampled students generated by NORC.

The Class Schedule package materials worked quite well. However, some problems arose which should be addressed before materials are prepared for the base year survey. Ten school coordinators telephoned NORC with questions after reviewing the materials. In addition, Westat initiated telephone calls to nine coordinators to clarify Class Schedule information. Most of the problems which necessitated these telephone contacts can be avoided during the base year by making some simple changes to the materials.

One of the main problems was confusion about the "Class Number" category on the Class Schedule. This number was meant to be a unique identifier for each class, used in the processing of data. Several coordinators called NORC with questions about the class number. In addition, only eight of the 51 schools in the Field Test completed the class number column correctly. Westat staff were able to assign corrected class numbers based on the period/hour and teacher information supplied by the school coordinator. Therefore, we propose to eliminate the "class number" category from the Class Schedule; instead, class numbers will be assigned by Westat staff during the processing of the Class Schedule.

A second problem occurred in schools that had variable schedules, where classes met at different times on different days. For this situation, coordinators were directed to write "none" in the period/hour column. This meant that we could not differentiate between each teacher's various classes. Therefore, it was impossible for Westat to identify the list of classes about which each teacher was to provide information in Part II of the teacher questionnaire. This problem occurred at three schools all located in New York State. Westat telephoned each school and determined that eighth grade students attended classes with the same group of students all day. Therefore, classes could be differentiated by the class number assigned by the school. The coordinators gave Westat the school class number for each sampled student. These school class numbers were then used in place of a period/hour number to identify individual classes. Thus, we propose to add to the base year materials instructions for handling this situation. Also, the instructions will be changed to explain more fully the reasons why the detailed class information is needed.

A third problem occurred in schools where there was only one teacher per subject for eighth grade students. The instructions indicated that the purpose of the Class Schedule was to identify the teacher-respondents for the Teacher Survey. Therefore, some coordinators felt that they only needed to list the teachers and did not need to complete the entire Class Schedule. However, if each teacher taught more than one class of eighth graders, then the specific Class Schedule information was essential. We propose altering the instructions to explain all purposes of the Class Schedule.

Several other minor problems occurred which can be avoided during the base year by clarifying the instructions for completing the Class Schedule. These problems are discussed below:

- Some sampled students left the school between the time period when sampling was conducted and the Class Schedule was completed. During the Field Test, coordinators who telephoned with such a problem were instructed to indicate "withdrew" on the Class Schedule for these students. This instruction will be added to the base year materials.
- Some students attended two classes in the same subject (e.g., grammar and literature). In the Field Test, coordinators were instructed to select the class that involved the most advanced subject matter. Some coordinators did not feel that one class was more advanced than the other. If such situations occur during the base year, NORC or Westat will randomly select one of the two classes.
- Some coordinators reported class schedule information obtained from planning schedules constructed before the school year began, although the actual schedules were quite different. During the base year, emphasis will be placed on obtaining the most current class schedule.
- Including the school telephone number on the Class Schedule for the base year will make it easier to contact the coordinator for clarification without needing to cross-reference survey records.

In addition to the above problems, others resulted from coordinator errors in completing the Class Schedules. These errors were judged not to be caused by problems with the materials. Westat expects that telephone calls to a small number of coordinators will be needed during the base year study to clarify information on the Class Schedule information.

Procedures

A Class Schedule package was mailed to each school coordinator by NORC after the students had been selected and a sampled student roster had been generated for the school. Coordinators returned their completed forms to NORC by first class mail. Once a copy of the completed Class Schedule was made at NORC, the original was sent to Westat by Federal Express.

The first Class Schedule package was mailed December 16, 1986. An additional 18 packages were sent to school coordinators during December. The response time for the return of these forms to NORC was just over three weeks on the average. This response time was twice as long as the later average because of the winter holidays.

Eleven packages were mailed during January 1987, and 19 were mailed in February. The response time to NORC for these forms was an average of 8.4 business days. An additional day was needed to return the forms to Westat. The remaining two schools were sent packages by Federal Express during March. These two schools responded in five days. For all schools in the Field Test, the longest response time was 24 days.

If a Class Schedule was not returned to NORC within two weeks, a prompting telephone call was made to the school coordinator. Four coordinators chose to complete the form during the telephone call. These four schools had small class sizes and, except for one school, had only one teacher per subject.

When a Class Schedule was received at NORC, it was checked for completeness. If any crucial items were missing, the coordinator was called. There were never any serious problems with the returned forms. Copies were made of the forms, and the originals were sent to Westat.

5.4.2 Collection of School and Student Data

School and student files were sent to Westat by NORC on computer tapes. A total of six tapes were sent during the Field Test. Information from the tapes was copied onto Westat's computer system, and the tapes were returned to NORC.

School data were sent to Westat as soon as a school had agreed to participate in the study. School data included: ID number, school name, address, telephone number, coordinator name and title, scheduled survey date, and school characteristics (such as size and control). This information was used to produce coordinator mailing labels and to ensure that materials were sent before survey day.

Student data were sent to Westat once the student sampling was completed for a school. These data included sampled students' ID numbers and names. This information was used to produce the student lists included in each teacher questionnaire package. Teachers used this sampled student list to respond to Part I of the questionnaire.

In addition to school and student data, NORC provided Westat with a list of team leader names, addresses, and school assignments. As team leader assignments changed, NORC sent updated information to Westat by Federal Express.

5.4.3 Mailing Preparations for School Packages

Once all of the pre-survey materials were received at Westat for a particular school, a questionnaire package was prepared for that school. The planned data collection method (method 1) involved transmitting a questionnaire package to a school in order that the package would arrive at least two weeks prior to the scheduled survey day. This allowed time for the questionnaires to be distributed and completed before survey day. Thus, completed questionnaires could be collected by the NORC team leader on survey day. During the Field Test, 23 schools were sent packages by this method.

For the remaining 28 schools, the materials required to prepare a school package for mailout were not received two weeks before survey day. Therefore, an alternative data collection method (method 2) was used with these schools. This second method involved sending a questionnaire package to the NORC team leader before survey day. The team leader then gave the package to the school coordinator on survey day. The school coordinator was responsible for distributing and collecting questionnaires, and mailing the completed forms to Westat.

Data collection method 1 (sending questionnaires to the schools two weeks before survey day) has several advantages over method 2:

- There is more incentive for teachers and principals to have their questionnaires completed by survey day, since they know the team leader will be visiting to collect the forms.

- Method 1 requires a shorter data collection period. Using method 1, completed questionnaires are expected at Westat one week after the survey day. Using method 2, completed forms are not expected until three weeks after the survey day (two weeks are needed to distribute, complete, and collect forms; one week is needed for mailing time).

- Method 1 eliminates the coordinator's responsibility of mailing questionnaires to Westat. During the Field Test, several coordinators who were called for nonresponse followup said that the questionnaires were completed but they either "forgot" to mail them, or thought that they had already been mailed.

- When the team leader collects questionnaires (using method 1) he/she can ensure that every form is accounted for. The team leader can make sure that the coordinator understands how to collect and return any forms that are not completed by survey day. This procedure helps reduce the number of followup calls needed for incomplete packages returned to Westat.

The importance of obtaining a completed Class Schedule matrix for each participating school was discussed in an earlier section of this chapter (see section 5.4.1). The Class Schedule must be received and processed before teacher questionnaires are sent to the school coordinator. The Class Schedule information is used to produce, for each teacher-respondent, a list of classes for which the teacher is asked to provide descriptive information in Part II of the questionnaire. Therefore, the Class Schedule fulfills two main purposes: (1) to identify, by teacher, the specific class each student attends for each of the curriculum areas assigned to the school, and (2) to link teacher ratings of students and descriptions of curriculum and practices to individual sampled students. In summary, the mechanism for linking descriptions of curriculum and practices to specific students would be lost if a completed Class Schedule is not available for each participating school.

Westat and NORC are discussing ways to increase the use of method 1 during the base year study. The main reason method 2 was used during the Field Test was because Class Schedules were received at Westat less than two weeks before survey day. For the method 2 schools, Class Schedules were received at Westat an average of 6.5 business days before the scheduled survey day. Data collection of Class Schedules cannot begin until the student sample has been drawn at NORC. It then takes an average of just under two weeks to collect the Class Schedules. Therefore, Westat and NORC are exploring the possibility of combining the student sample selection and collection of Class Schedule information. One strategy for accomplishing this goal would be to have NORC field staff visit each school to draw the student sample on-site. Once the sample was drawn, the school coordinator could work with NORC field staff to complete the Class Schedule for each sampled student. This procedure would reduce the pre-survey data collection time and allow the school and teacher survey activities to begin earlier.

5.5 Data Collection Procedures

Data collection includes all activities associated with obtaining completed school and teacher questionnaires. These activities include: questionnaire mailout, receipt control, nonresponse followup, and data retrieval followup. Each activity is described in detail in the following sections.

5.5.1 Questionnaire Mailout

Once all of the pre-survey materials were received for a school, the appropriate mailing method was determined, based on the survey date of the school. Next, mailing labels, etc., were produced for the school, and questionnaire packages were assembled. Exhibit 5-2 lists the mailout materials for each mailing method. Appendices 5D and 5E contain copies of the materials used for mailing method 1 and method 2, respectively.

As discussed in Section 5.4.3, two methods of questionnaire mailout were used during the Field Test. Method 1, the preferred method, involved mailing a questionnaire package to school coordinators prior to the scheduled survey day. Completed questionnaires were then collected by the team leader on survey day. Therefore, with method 1, a related package was mailed to the team leader, containing instructions and forms needed to collect the questionnaires and return them to Westat. Items included in the questionnaire package sent to the school coordinators for method 1 include the following:

- Coordinator cover letter;
- Principal (school) questionnaire packet; and
- Teacher questionnaire packets.

Exhibit 5-2

NELS:88 Field Test School and Teacher Questionnaire Mailout Materials

Method 1 (If one and 1/2 weeks or more before survey day)

School Package (sent to School Coordinator):

1. "Dear NELS:88 School Coordinator" Cover Letter
2. Principal Packet (inside plain envelope with principal label)
    - A. "Dear Principal" Cover Letter
    - B. Study Brochure
    - C. School Questionnaire with School ID#
3. Teacher Packets (inside plain envelope with teacher name label):
    - A. "Dear Teacher" Cover Letter
    - B. Study Brochure
    - C. Teacher Questionnaire with Class List Label
    - D. Student List Inserted in Teacher Questionnaire

Team Leader Package:

1. "Dear NELS:88 Team Leader" Cover Letter
2. Copy of "Dear NELS:88 School Coordinator" Cover Letter, Stamped as Information Copy Only
3. Instructions for Completion of NELS:88 Field Test School and Teacher Questionnaire Transmittal Form
4. Two Copies of the Transmittal Form
5. Folded TYVEK Envelope with Business Reply Label
6. Five Business Reply Labels

Exhibit 5-2 (continued)

NELS:88 Field Test School and Teacher Questionnaire Mailout Materials

Method 2 (If less than one and 1/2 weeks before survey day)

Team Leader Package:

1. "Dear NORC Team Leader" Cover Letter
2. Coordinator Packet (inside plain envelope with coordinator label):
    - A. Instructions to School Coordinators for Distribution and Return of NELS:88 Field Test and Teacher Questionnaires
    - B. Two Copies of the Transmittal Form
    - C. Folded TYVEK Envelope with Business Reply Envelope
    - D. Three Business Reply Labels
3. Principal Packet (inside plain envelope with principal label):
    - A. "Dear Principal" Cover Letter
    - B. Study Brochure
    - C. School Questionnaire with School ID#
4. Teacher Packets (inside plain envelope with teacher name label):
    - A. "Dear Teacher" Cover Letter
    - B. Study Brochure
    - C. Teacher Questionnaire with Class List Label
    - D. Student List Inserted in Teacher Questionnaire

The NORC team leader package for mailout method 1 included:

- Team leader cover letter and instructions for collecting completed questionnaires;
- Transmittal forms for recording the status of each questionnaire; and
- Envelopes and labels for returning questionnaires to Westat.

The second mailout method was used when materials needed for mailout were not obtained two weeks before survey day. This method involved sending all materials to the NORC team leader, who then gave the package to the school coordinator on survey day. The school coordinator was responsible for distributing and collecting questionnaires, and mailing completed forms to Westat. Items in the questionnaire package sent to the NORC team leader for method 2 included:

- Team leader cover letter;
- School coordinator packet containing: instructions for collection of completed questionnaires, transmittal forms for recording the status of each questionnaire, and envelopes and labels for returning questionnaires to Westat;
- Principal (school) questionnaire packet; and
- Teacher questionnaire packets.

5.5.2 Receipt Control

Records of all data collection activities were maintained in a computer-based receipt control system. This system was implemented using the status monitoring system (SMS) that is part of Westat's Survey Information System (SIS). SIS/SMS is implemented in the C language on Westat's VAX computers and operates very efficiently using operating system calls for indexed file processing. The receipt control system has full security features, including optional password protection of fields and hidden fields. An important feature of SIS/SMS is that it provides an integrated interface to a database which can include any number of files. Therefore, the field test receipt control system contained two files within the same database: the school file containing school-level information such as scheduled survey date and mailout date; and the questionnaire file containing information for each questionnaire, such as date received and status code. A description of the receipt control fields for each file appears in Appendix 5F.

When a "package" of school and teacher questionnaires was received at Westat, the contents were reviewed and status codes were assigned. The specific procedures followed are listed in Exhibit 5-3. Next, the date received and status codes were logged in the receipt control system. The questionnaires were then filed for further processing.

In addition to questionnaire receipt, the receipt control system was used to record transmittals to and from the telephone center and data entry. Questionnaires requiring nonresponse or data retrieval followup were logged out to the telephone center. When followup was completed, the followup status was logged in the system. When a batch of questionnaires was ready for data entry, the data entry batch number was entered in the receipt control system. Next, a batch listing was run, and two copies of the listing were printed. One copy of the list was sent with the cases to data entry, and one copy was retained in receipt control.

Each week during the data collection period, a status report was produced by Westat and sent to NORC. This report reflected the status of school and teacher questionnaire receipt each week. The final status of questionnaire receipt by control of school appears in Table 5-2. In general, no trends in "refusals" or "nonresponse" were noted for either the school or teacher questionnaire.

5.5.3 Nonresponse Followup

The three types of followup conducted for nonrespondent school and teacher questionnaires were: telephone calls to the coordinator when no package was received from a school, telephone calls to the coordinator when an incomplete package was received, and telephone calls to principals and teachers to collect questionnaire information by phone. Each of these types of followup is discussed in detail in the following sections.

After a questionnaire package was mailed from Westat, the expected return date was determined based on the mailout method used. An expected return date of one week after

Exhibit 5-3

NELS:88 Field Test
Package Receipt Instructions

1. Record date received on transmittal form.

2. Check transmittal form against packets. Make any necessary changes or notes on the form in red pencil.

3. Write the school status code on the transmittal form:

   CM = Complete, all forms received

   PC = Partial Complete, some forms received

4. Remove questionnaires from envelopes and check that each questionnaire has an ID label which matches the envelope label (the school form does not have a label but has the ID written on the cover). If the label or ID is missing or does not match, keep the questionnaire with the envelope. Keep the envelope if it has notes on it written by the respondent. Otherwise, throw away the empty envelopes.

5. Write the questionnaire status code on each questionnaire:

   CM = Received by mail

   CT = Received by telephone

   RF = Refused

   OT = Other

6. Log the date received and school status in the school receipt control file. Log the date received and questionnaire status in the questionnaire file for each form received.

7. Put the questionnaires and transmittal form in the school folder. If all questionnaires were received, file the folder in the drawer for "Complete Packages." If some questionnaires are still missing, file in the drawer for "Partial Packages."

Table 5-2

Questionnaire Status by Control of School

School Questionnaire Status	Total	Control of School		
		Public	Catholic	Other Private
Nonresponse	2	2	-	-
Questionnaire received	46	34	5	7
Principal refused	3	2	1	-
Total	51	38	6	7

Teacher Questionnaire Status	Total	Control of School		
		Public	Catholic	Other Private
Nonresponse	3	3	-	-
Questionnaire received	284	254	11	19
Teacher refused	7	7	-	-
Teacher left school	2	2	-	-
Teacher sampled in error	6	5	-	1
Total	302	271	11	20

survey day was used for schools sent questionnaires by mailout method 1. Mailout method 1 involved sending questionnaires to the school for collection by the team leader on survey day. Therefore, one week was allowed for the team leader to package the questionnaires and return them to Westat by first class mail. For schools sent questionnaires by mailout method 2, the expected return date was three weeks after survey day. For this mailout method, questionnaires were sent to the team leader who gave them to the coordinator on survey day. Three weeks allowed the coordinator time to distribute, collect, and mail the questionnaires to Westat.

Of the 51 schools in the Field Test, 38 returned packages to Westat on or before the expected return date. Seven schools returned packages within one week of the expected return date. For the remaining six schools, prompting telephone calls were made to the coordinators. Since all of these schools had been sent questionnaires using mailout method 2, the coordinators were responsible for sending questionnaires directly to Westat. Five of the six schools responded after one telephone contact. The remaining school required two telephone contacts before responding.

The second type of nonresponse followup involved telephone calls to coordinators for incomplete packages. Sixteen incomplete packages were received at Westat during the Field Test. When an incomplete package was received, the transmittal form was reviewed to determine what followup arrangements had been made by the coordinator or team leader for return of the nonrespondent questionnaires. If questionnaires were not received at Westat by the target date specified on the transmittal form, a followup telephone call was made to the school. Of the 16 incomplete packages, 11 required telephone calls to the coordinator.

For those questionnaires not received after followup telephone calls to the coordinator, the principals and teachers were contacted to collect questionnaire data by telephone. These contacts were made to eight schools, and involved five school questionnaires and nine teacher questionnaires. The results of contacts with these 14 cases were: two questionnaires were completed, eight refused, and four would not complete questionnaires by phone but promised to mail them (none of these forms was received, however). This followup effort was conducted at the same time as the data retrieval followup effort. Therefore, the training procedures are described in the Data Retrieval Section 5.5.4.

5.5.4 Data Retrieval Followup

If a school or teacher questionnaire contained a key question error or a data consistency error that related to a key question, a data retrieval telephone call was made to the respondent. A list of key questions for each questionnaire type appears in Exhibit 5-4. When a telephone call was made to a respondent, all errors or missing data on the questionnaire were resolved. Table 5-3 shows the number of data retrieval followup cases by the control of the school (i.e., public, Catholic, and other private). No trends were noted in the degree of data retrieval followup by the control status of the Field Test school. However, a large proportion of teacher questionnaires required data retrieval followup.

The main data retrieval problem was discrepancies between Part I of the teacher questionnaire and the Class Schedule completed by the coordinator. When a completed teacher questionnaire was received at Westat, the answers to Part I, Question 1 were compared to the Class Schedule. If a student was identified on the Class Schedule as assigned to a particular teacher, but that teacher did not answer "Yes" for that student in Part I, Question 1, then the case was sent to data retrieval. These calls determined that most discrepancies were the result of errors made by the teachers. Some teachers interpreted Question 1 to include only students assigned to them continuously since September, instead of at any time since September. Recommended changes to this question are discussed in Section 5.7.2. In addition, some teachers scanned the list of student names quickly and skipped some students they should have included. A possible remedy for this problem would be to include the two teachers' names supplied by the coordinator next to each student's name on the student list provided to the teacher with the questionnaire.

Before data retrieval followup began, a telephone interviewer manual was produced. (See Appendix 5G.) This manual included general instructions, administrative procedures, and instructions for handling specific data retrieval items. Telephone interviewer training was conducted on April 13, 1987 and interviewing began the following day. Before being assigned to the NELS:88 Field Test project, each interviewer had to complete successfully the Westat general interviewer training. This training consisted of audiovisual presentations and a written manual on general telephone interviewing techniques and Telephone Research Center (TRC) administrative procedures. The training session for the Field Test was conducted using interactive lectures and dyad role playing. During the lecture phase, all procedures were

Exhibit 5-4

NELS:88 Field Test Key Questions

School Questionnaire

Part 1:	P1Q1, P1Q2, P1Q3, P1Q4, P1Q5
Part 2:	P2Q3, P2Q4, P2Q9, P2Q10
Part 3:	P3Q1, P3Q2, P3Q4, P3Q5
Part 4:	P4Q1, P4Q8, P4Q11
Part 5:	P5Q1
Part 6:	P6Q3, P6Q4
Part 8:	P8Q3

Teacher Questionnaire

Part I:	For all students P1Q1, P1Q4, P1Q6, P1Q12
Part II:	P2Q1, P2Q2, P2Q3, P2Q4, P2Q5, P2Q6, P2Q12, P2Q14, P2Q16, P2Q17, P2Q20, P2Q21, P2Q23
Part III:	P3Q1, P3Q2, P3Q4, P3Q7, P3Q9, P3Q10, P3Q11, P3Q12, P3Q13, P3Q14, P3Q15, P3Q20, P3Q21

Table 5-3

Data Retrieval Followup Status by School Control

School questionnaire data retrieval status	Total	Control of School		
		Public	Catholic	Other Private
Data retrieval followup required	27	23	2	2
No data retrieval followup required	24	15	4	5
Total	51	38	6	7

Teacher questionnaire data retrieval status	Total	Control of School		
		Public	Catholic	Other Private
Data retrieval followup required	225	201	9	15
No data retrieval followup required	77	70	2	5
Total	302	271	11	20

presented and questions were answered as they arose. After the lecture was completed, role plays were conducted in pairs, or dyads. Each pair of trainees completed two scripted interviews, alternating the roles of interviewer and respondent. The respondent was given a script containing answers and comments to be used for each questionnaire item, and the other trainee acted as interviewer and completed a blank script. The purpose of the role plays was to provide additional practice with the questionnaire and allow the trainees to get a feel for the flow of the interview without interruption. Throughout the training, emphasis was placed on encouraging respondent cooperation. Questions that the respondent might ask were presented and reviewed along with the possible answers to such questions.

After training, interviewers were monitored by TRC supervisors. In addition, each interviewer's completed cases were carefully reviewed. Any problems were discussed with the interviewers and corrected.

5.6 Data Processing Completed Questionnaire

Data preparation and processing included all activities associated with converting information from completed school and teacher questionnaires to clean data files. These activities included manual editing and coding, data entry, and machine editing, which are discussed in the following sections.

5.6.1 Manual Editing and Coding

This operation included manual editing and coding of both school and teacher questionnaires. The purposes of the editing and coding operation were:

- To identify questionnaires needing data retrieval and prepare them for telephoning;
- To identify problem situations requiring coding decisions;
- To review completed data retrieval cases, recoding as necessary; and
- To prepare all questionnaires for data entry.

The first step in performing the coding operation was to produce coding manuals for each questionnaire type. For this activity, Westat uses a proprietary computer software system called COED (Codebook Editor). The COED system can format and print a coding manual, and produce a COBOL machine edit program. Both of these functions of COED use the same input file, called the COED source file. The source file contains information on all data items, including variable names, column numbers, questions, and allowable codes. This file is created at the beginning of the study and is updated with current information as the study progresses.

The first product derived from the COED system is a coding manual in a printed, readable format. The coding manual is the document that contains all questions and allowable responses, record layout information, and coding information; it is the primary guide used in the coding process. In addition, the coding manual contains all edit instructions for the manual edit/code operation. The coding manuals used for school and teacher questionnaires appear in Appendices 5H and 5I, respectively.

The second COED product is the COBOL edit program. This program "cleans" the data by eliminating errors that may have been made in coding or data entry by passing the data through a series of COBOL if-then statements. This machine edit system is discussed in Section 5.6.3.

Once the coding manuals had been developed, separate training sessions were held for school and teacher questionnaire coding. These training sessions consisted of interactive lectures and coding of practice questionnaires. Practice questionnaires were verified by the trainers as soon as they were coded, so that errors could be discussed and corrected. This technique allowed for an open discussion of problem areas, and enabled trainers to clear up areas of misunderstanding and to identify trainees who had particular problems.

After training, the coding supervisor verified each coder's work. Any problems or edit errors discovered during the coding operation were recorded on a coding problem sheet (Exhibit 5-5) which was then attached to the questionnaire. The three types of problems discovered during coding were: respondent errors to key questions, respondent errors to non-key questions, and problem situations which required a coding decision.

Exhibit 5-5

Coding Problem Sheet

ID#______________________________Date:__________________________

Coder initials:____________

Problem

Question #	Explanation

Resolution

Question #	Explanation

If a questionnaire contained a key question error or a data consistency error that related to a key question, a data retrieval call was made to the school. A list of key questions appears in Exhibit 5-4 in Section 5.5.4. When a call was made to a school, all errors or missing data on the form were resolved. Therefore, when an editor determined that a call was required, all information needed for key and non-key questions was included on the problem sheet. The data retrieval cases were then sent to the Telephone Research Center to be resolved.

If a questionnaire contained only non-key question respondent errors, no call was made to the school. The coding supervisor attempted to resolve the error using information from the rest of the questionnaire. If the error could not be resolved this way, then the nonresponse code was assigned.

If a questionnaire contained a problem situation requiring a coding decision, the case was referred to the coding supervisor. When a problem occurred in more than one or two cases, instructions on how to handle it were distributed to all coders. The coding supervisor explained the new instructions and checked that each coder understood them.

5.6.2 Data Entry

Coded questionnaires were transmitted in batches to Westat's data entry facility. Questionnaires were keyed to disk following specifications programmed specifically for each type of questionnaire (school and teacher). These specifications included all skip patterns and zero-filling of numeric fields. Each questionnaire batch was 100 percent key verified. After verification, each batch file was transmitted to Electronic Data Systems (EDS) where the machine edit programs were run.

5.6.3 Machine Editing

The purpose of the machine edit operation was to identify and correct errors on the questionnaire data files. The types of errors corrected included respondent errors, coding errors, and data entry errors. All checks made during manual editing were also made during machine editing. Thus, any errors not identified manually were identified by computer. The machine edit specifications include all checks needed to identify respondent, coding and data entry errors. Separate specifications were developed for each questionnaire type. These specifications appear in Appendices 5J and 5K. The types of checks contained in the edit specifications are:

- Alpha versus numeric: This edit check consists of checking all fields in the data record to make sure that pure numeric fields contain no alphabetic or special characters.
- Range check: These edit checks verify that each field contains only allowable codes.
- Skip pattern check: These checks verify that all skip instructions on the questionnaire have been correctly followed by the respondent.
- Data consistency check: These checks compare data in different fields within a record to ensure that consistent answers were given by the respondent.
- Addition check: This type of check is used to verify that the total fields are correct.

As discussed in Section 5.6.1, the Westat COED system was used to produce the COBOL machine edit programs. All range and skip pattern checks were generated from the same source files used to produce the coding manuals. Next, the remaining logic checks (for data consistency and addition errors) were added to the logic check file. The COED system then translated the range and logic checks into structured COBOL code. Thus, a machine edit program was produced for each questionnaire type (school and teacher).

When each questionnaire batch was key entered and transmitted to EDS, the machine edit was run for that batch. The machine editor compared the error listing produced by the machine edit program against the questionnaires. To determine how to resolve the edit errors for a case, the editor first determined whether each error was:

- A data entry or coding error;
- A respondent error (including missing data) to a key question;
- A respondent error (including missing data) to a non-key question; or
- A problem situation requiring an editing decision.

For data entry and coding errors, the editor obtained the correct data from the questionnaire and wrote the correction on an update sheet.

Since most respondent errors and problem situations were identified and corrected during the manual edit operation, only a few of these errors appeared during machine editing. For these few cases, the procedures followed were the same as those followed during the coding operation (as discussed in Section 5.6.1). When the correct information was obtained, the editor wrote the correction on an update sheet.

When an entire batch had been edited, all update sheets for that batch were keyed to produce an update file. These updates were then made to the batch data file, and a new was edit run. This cycle was continued until all errors for that batch were resolved.

5.7 Analysis of Questionnaire Item Responses and Nonresponse

As noted in a preceding section, the overall response rates achieved for the School and Teacher Surveys were 90 percent and 96 percent, respectively. Although these rates are quite acceptable, several suggestions and/or modifications have been identified that would improve the quality of the information acquired through the survey instruments.

This section of the Field Test report discusses the individual item responses, or nonresponse in some cases, for each questionnaire. Each discussion highlights specific recommendations that should be considered for adoption prior to initiating the base year study. A discussion of the school questionnaire is presented prior to a discussion of the teacher questionnaire.

5.7.1 School Questionnaire

Overall, data collection and retrieval procedures related to the school questionnaire were judged to be successful. In total, 46 of the 51 questionnaires distributed were completed and returned. Of the remaining five questionnaires, three were considered refusals and two were categorized as nonresponses.

During the data collection stage, the Field Test "school packages" returned to Westat were monitored and reviewed for completeness in terms of containing the expected number of school and teacher questionnaires. When a school package was delayed or determined to be incomplete, the school questionnaire was often the cause of the delay or incomplete status.

The delay in the return of the school questionnaire is reflective of the inordinate amount of time that it took to complete the questionnaire, as reported by school principals. As summarized from the responses to Part 8, Item 6 of the school questionnaire, the average number of person-hours required to complete the questionnaire was 1 hour and 36 minutes, with a range of 20 minutes to 5 hours.

This time requirement certainly exceeded project staff projections and suggests that the overall length of the questionnaire should be shortened. However, specific items and/or sections are difficult to target for deletion based on the recommendations made by CES staff and the NAP during the development of the Field Test instrument which indicated that all information requested is warranted. Should CES staff maintain the emphasis on staying within an estimated response burden of one hour, much attention to reducing the length of the school questionnaire will need to be extended by CES and NAP. One suggestion offered is to reduce the added emphasis placed on gifted and talented programs in the questionnaire by combining Part 6, Item 3 and Item 4 and eliminating Part 6, Items 5, 6, and 7. Although this balances the emphasis placed on various school programs addressed in the school questionnaire, the reduction in completion time is minimal. In the event that the questionnaire is not significantly reduced in length, we would recommend that a more accurate estimate of the time required to complete the questionnaire be conveyed to principals and included in the appropriate backup materials. In addition, a higher nonresponse rate should be expected in the conduct of the School Survey for the base year study, requiring project staff to allocate additional project resources to nonresponse followup and data retrieval efforts.

The percent of response and nonresponse to each school questionnaire item is presented in Table 5-4. The percentage of response to all items exceeded 90 percent following all followup efforts. Only a small number of items were responded to by principals as "don't

Table 5-4

Percent of Item Response and Nonresponse for the School Questionnaire[1]

Item	Responded	Refused	Don't Know	Not Ascertained	Total
*P1Q1	100%				100%
*P1Q2	100%				100%
*P1Q3	100%				100%
*P1Q4	100%				100%
*P1Q5	100%				100%
P1Q6	100%				100%
P1Q7	100%				100%
P1Q8	100%				100%
P1Q9A	97.8%		2.2%		100%
P1Q9B	97.8%		2.2%		100%
P1Q9C	97.8%		2.2%		100%
P1Q9D	97.8%		2.2%		100%
P2Q1	100%				100%
P2Q2	100%				100%
*P2Q3 (A-E)	100%				100%
*P2Q4	97.8%		2.2%		100%
P2Q5	93.5%		6.5%		100%
P2Q6A	100%				100%
P2Q6B	100%				100%
P2Q6C	97.8%			2.2%	100%
P2Q6D	97.8%			2.2%	100%
P2Q7	100%				100%
P2Q8	100%				100%
P2Q9 (A-D)	100%				100%
*P2Q10 (A-H)	100%				100%
*P3Q1	100%				100%
*P3Q2	100%				100%
*P3Q3	100%				100%
*P3Q4	100%				100%
*P3Q5	100%				100%
P3Q6	97.8%			2.2%	100%
P3Q7					100%
P3Q8 (A-E)	100%				100%
P3Q9	97.8%		2.2%		100%
P3Q10	100%				100%

---

[*] Key Item

[1] Number of expected responses per item varies due to item skip patterns

Table 5-4

Percent of Item Response and Nonresponse for the School Questionnaire[1] (continued)

Item	Responded	Refused	Don't Know	Not Ascertained	Total
*P4Q1 (A-F)	100%				100%
P4Q2	100%				
P4Q3	91.7%			8.3%	100%
P4Q4	91.7%			8.3%	100%
P4Q5 (A-H)	100%				100%
P4Q6	100%				100%
P4Q7	100%				100%
*P4Q8	100%				100%
P4Q9	100%				100%
P4Q10	100%				100%
*P4Q11	100%				100%
P4Q12	100%				100%
*P5Q1 (A-D)	100%				100%
P5Q2 (A-D)	100%				100%
P5Q3	100%				100%
P5Q4	100%				100%
P5Q5	100%				100%
P5Q6 (A-E)	100%				100%
P6Q1 (A-P)	100%				100%
P6Q2 (A-E)	100%				100%
*P6Q3	100%				100%
*P6Q4 (A-I)	100%				100%
P6Q5	100%				100%
P6Q6 (A-E)	100%				100%
P6Q7 (A-I)	96.7%			3.3%	100%
P6Q8 (A & O)	95.6%			4.4%	100%
P6Q8 (B-N, & P, Q, R, T & U)	97.8%			2.2%	100%
P6Q8 (S)	93.5%			6.5%	100%
P7Q1 (A, L, & O)	97.8%			2.2%	100%
P7Q1 (B-K, M & N)	100%				100%
P7Q2 (A-L)	100%				100%
P7Q3 (A-K)	100%				100%

Table 5-4

Percent of Item Response and Nonresponse for the School Questionnaire[1] (continued)

Item	Responded	Refused	Don't Know	Not Ascertained	Total
P8Q1	97.8%		2.2%		100%
P8Q2 (A-H)	100%				100%
*P8Q3	95.6%		2.2%	2.2%	100%
P8Q4A	100%				100%
P8Q4B	97.8%			2.2%	100%
P8Q4C (C, D & E)	95.6%			4.4%	100%
P8Q4 (F-I)	97.8%			2.2%	100%
P8Q4J	100%				100%
P8Q4 (K-M)	97.8%			2.2%	100%
P8Q5A	97.8%			2.2%	100%
P8Q5B	95.6%			4.4%	100%
P8Q5 (C-K)	97.8%			2.2%	100%
P8Q5L	95.6%			4.4%	100%
P8Q5M	97.8%			2.2%	100%
P8Q6	97.8%		2.2%		100%

know," or were coded by project staff as "not ascertained" in cases where non-key items were left blank by respondents. No items were coded as "refusals." It should be noted that the percentages reported in Table 5-4 are based on the number of expected responses for an item which varies due to item skip patterns.

As a result of coding and editing efforts as well as telephone data retrieval activities, several problem items were noted. Each of these items is identified and discussed below.

- Part 1, Question 5 -- The "specialized" response category was not utilized by respondents. We would recommend keeping this response category, since this result is likely due to the characteristics of the Field Test school sample.

- Part 1, Question 9 -- 45 respondents identified a school A, 24 respondents identified a school B, 16 identified a school C, and 8 identified a school D. However, respondents were less likely to record information about the "grade span" and "percentage expected to attend" relative to the school identified, since in large cities eighth grade students branch off to as many as 30 different schools. We would recommend eliminating the collection of "grade span" and "percentage expected to attend" information, as these details do not offer much additional assistance in tracking the eighth grade student longitudinally.

- Part 2, Question 9 -- Two specific problems were noted concerning this item. First, about 20 percent of the respondents incorrectly responded to Part C of this item. [That is, respondents noted that academic subjects were taught in a foreign language in Part C, but responded "no" to all academic subjects listed in Part D.] During data retrieval efforts, project staff discovered that the information provided in Part C indicated that the school offered a course in Spanish, French, etc., rather than academic subjects taught in a foreign language. We would recommend modifying the stem to Part C and Part D in order to clarify the intent of this questionnaire item. Part C could be modified as follows:

  C. Academic subjects (not foreign language courses) taught in:

  Part D could be modified as follows:

  D. Which academic subjects are taught in a foreign language?

  The second problem that was identified concerns the response options listed in Part C. In reviewing the responses to this item, the only response options used by 10 percent or more of the respondents were: English, Spanish, and French. We would recommend modifying the response options to Part C to include the following reduced list of options: English, Spanish, French, and Other (Write in).

- Part 3, Question 6 -- Only 10 percent of the respondents provided a "range" rather than the "dollar amount" for the base salary for a beginning teacher. We would recommend that this questionnaire item be simplified by requesting only a "dollar amount."

- Part 4, Question 1 -- Response options "4" [achievement criteria] and "5" [other (specify)] were not utilized by respondents. We do not recommend any modifications to this questionnaire item, since this finding is likely to be due to the characteristics of the Field Test school sample.

- Part 5, Question 1 -- 42 respondents identified a test name A, 17 respondents identified a test name B, 6 identified a test name C, and 2 identified a test name D. However, respondents were less likely to record information about the date (i.e., month, day, and year) of the last administration of the test. Specifically, the "day" the test was administered was the most problematic. We would recommend modifying this item to request the date of administration in terms of month and year only.

  In several cases, respondents indicated a test that would be administered to students at the "ninth" grade level. Additional review of these responses is required in order to determine if the item is focused correctly.

  In addition, coding specifications for this item included a two-digit code that was assigned to the write-in responses to "test name." In review of the codes utilized relative to the data processing of this questionnaire item, the "Other" code was frequently used. We propose to review the write-in responses in order to expand the standardized codes assigned in the processing of this item.

  Finally, the format of this item should be modified to include an alpha-number (i.e., A, B, C, and D) for each of the possible write-in responses.

- Part 7, Question 2 -- All respondents indicated "yes" to the existence to the following sub-item: "No-smoking rules prohibiting smoking by students in school or on school grounds." We would recommend that this sub-item be dropped, since little, if any variation, in responses appears to exist.

- Part 8, Question 2 -- All respondents indicated "yes" to the existence of the following sub-items: "Parents are given interim reports during the grading period if grades are low," "Parent conferences are scheduled at the parent's request to discuss student behavior and/or performance," and "Parent conferences are scheduled at the school's request to discuss student behavior and/or performance." In addition, 98 percent of all respondents indicated "yes" to the existence of following sub-item: "Parent-school associations are encouraged by the school." We would recommend that each of these sub-items be dropped, since little, if any, variation in responses appears to exist.

- Part 8, Question 4 and Question 5 -- The response category "No action" was not used by any of the respondents. In addition, one respondent indicated that a disciplinary action that might be taken is to transfer the student to an alternative school which (s)he felt was not addressed by the response scale.

We would propose modifying this response option to read "No action or warning issued."

Project staff did express concern that respondents might not realize that the focus of Part 8, Question 4 was related to "first occurrence," while the focus of Part 8, Question 5 was related to "repeated occurrences." Review of the responses to these questionnaire items did note a trend for increased disciplinary action across items. However, we would recommend that each focal topic (i.e., first occurrence or repeated occurrence) be emphasized by its inclusion in the underlined format, in the item stem.

Lastly, final questionnaire formatting should note the use of the abbreviation "discipl." for the word disciplinary. This might not be a standard form of abbreviation and should be explained in the stem of the questionnaire items.

5.7.2 Teacher Questionnaire

In general, data collection and retrieval procedures related to the teacher questionnaire were judged to be successful. In total, 284 of the 302 questionnaires distributed were completed and returned to Westat. Of the remaining 18 questionnaires, seven were considered refusals, three were categorized as nonresponses, two were not returned because the teacher-respondent left the sampled school, and six teacher-respondents were sampled in error by the school coordinators. Thus, a 96 percent response rate was achieved.

As previously discussed, approximately 5.9 teacher respondents were identified per Field Test school. On the average, each teacher provided ratings for 10.5 students in Part I of the questionnaire. Only 15 percent of the teacher-respondents were required to provide ratings for more than 18 students. However, six teacher-respondents were required to provided ratings for all 32 sampled students in their school.

In Part II of the questionnaire, an average of 2.8 classes were described by each teacher-respondent. In total, 790 teacher-class ratings were provided by the 284 teacher-respondents. Of this total, 208 were identified as English teacher-class combinations, 207 were identified as science teacher-class combinations, 191 were identified as social studies teacher-class combinations, and 184 were identified as mathematics teacher-class combinations. Table 5-5, provided below, presents the frequency distribution of the number of classes rated by the teacher-respondents.

Table 5-5.

Number of Courses Rated by Teacher-Respondents

Number of Courses	Number of Respondents	Percent
1	73	25.7
2	69	24.3
3	50	17.6
4	46	16.2
5	34	11.9
6	11	3.9
9	1	0.4
	284	100.0

In total, 12 teacher-respondents (4.3 percent) were required to rate more than five classes. This respondent characteristic necessitated that these individuals be sent a second teacher questionnaire in order to describe each of their classes in Part II of the questionnaire. This alteration in administration procedures for the teacher questionnaire was necessary because the item formats in Part II allow for a maximum of only five class descriptions. We propose no modification to the formatting of Part II of the questionnaire, since this finding confirms our earlier belief that the teacher-respondents who must rate more than five classes will be few and exceptions can be handled on an individual basis.

The percent of response and nonresponse to each teacher questionnaire item following followup effort is presented in Table 5-6. In general, the percentage of response to all items equaled or exceeded 90 percent. Ten items yielded lower response rates, ranging from 83 percent to 88 percent. Teacher-respondents infrequently provided a "Don't Know" or "Refused" response to items. As presented in Table 5-6, a very low percentage of questionnaire

Table 5-6

Percent of Item Response and Nonresponse for the Teacher Questionnaire[1]

Item	Responded	Refused	Don't Know	Not Ascertained	Total
*P1Q1 (1-32)	98.9% - 100%			0% - 1.1%	100%
P1Q2	97.2%	0.4%	1.3%	1.1%	100%
P1Q3	98.1%	0.4%	0.5%	1.0%	100%
*P1Q4	98.3%	0.4%	0.4%	0.9%	100%
P1Q5	94.7%	0.4%	3.9%	1.0%	100%
*P1Q6	97.5%	0.4%	0.7%	1.4%	100%
P1Q7	97.9%	0.4%	0.7%	1.0%	100%
P1Q8	98.2%	0.4%	0.5%	0.9%	100%
P1Q9	86.1%	0.4%	12.5%	1.0%	100%
P1Q10	88.7%	0.4%	9.8%	1.1%	100%
P1Q11	95.9%	0.4%	2.5%	1.2%	100%
*P1Q12	95.7%	0.4%	2.2%	1.7%	100%
*P2Q1	100%				100%
*P2Q2	99.0			1.0%	100%
*P2Q3	99.7%			0.3%	100%
*P2Q4	99.4%			0.6%	100%
*P2Q5	100%				100%
*P2Q6	98.1%		0.6%	1.3%	100%
P2Q7	98.4%			1.6%	100%
P2Q8A	99.5%			0.5%	100%
P2Q8B	99.5%			0.5%	100%
P2Q8C	99.5%			0.5%	100%
P2Q9	99.7%			0.3%	100%
P2Q10	98.3%			1.7%	100%
P2Q11A	97.7%			2.3%	100%
P2Q11B	97.0%			3.0%	100%
P2Q11C	97.8%			2.2%	100%
P2Q11D	97.0%			3.0%	100%
*P2Q12A	97.8%		1.2%	1.0%	100%
*P2Q12B	97.8%		1.2%	1.0%	100%
*P2Q12C	97.8%		1.2%	1.0%	100%
*P2Q12D	97.8%		1.2%	1.0%	100%
*P2Q12E	97.8%		1.2%	1.0%	100%
*P2Q12F	97.8%		1.2%	1.0%	100%
*P2Q12G	97.7%		1.1%	1.1%	100%
P2Q13	98.8%			1.2%	100%
*P2Q14	98.6%			1.4%	100%

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*Key Item

[1] Number of expected responses per item varies due to item skip patterns

Table 5-6

Percent of Item Response and Nonresponse for the Teacher Questionnaire[1] (continued)

Item	Responded	Refused	Don't Know	Not Ascertained	Total
P2Q15A	98.2%			1.3%	100%
P2Q15B	97.0%	0.4%		2.6%	100%
P2Q15C	97.6%	0.4%		2.0%	100%
P2Q15D	97.6%		0.3%	2.1%	100%
P2Q15E	97.0%		0.3%	2.7%	100%
P2Q15F	97.6%	0.4%		2.0%	100%
P2Q15G	96.6%	0.4%		3.0%	100%
*P2Q16A	98.0%			2.0%	100%
*P2Q16B	99.5%			0.5%	100%
*P2Q16C	99.5%			0.5%	100%
*P2Q16D	99.5%			0.5%	100%
*P2Q16E	99.5%			0.5%	100%
*P2Q17A	98.4%			1.6%	100%
*P2Q17B	98.4%			1.6%	100%
*P2Q17C	98.4%			1.6%	100%
*P2Q17D	98.4%			1.6%	100%
*P2Q17E	98.4%			1.6%	100%
*P2Q17F	98.4%			1.6%	100%
*P2Q17G	98.4%			1.6%	100%
*P2Q17H	97.3%		1.1%	1.6%	100%
*P2Q17I	96.2%			3.8%	100%
*P2Q17J	98.4%			1.6%	100%
P2Q18	99.5%			0.5%	100%
P2Q19	99.5%			0.5%	100%
*P2Q20A	99.0%			1.0%	100%
*P2Q20B	99.0%			1.0%	100%
*P2Q20C	99.0%			1.0%	100%
*P2Q20D	99.0%			1.0%	100%
*P2Q20E	99.0%			1.0%	100%
*P2Q20F	99.0%			1.0%	100%
*P2Q20G	99.0%			1.0%	100%
*P2Q20H	99.0%			1.0%	100%
*P2Q21 (A - D)	99.5%			0.5%	100%
*P2Q21E	98.6%			1.4%	100%
*P2Q21 (F - L)	99.5%			0.5%	100%
*P2Q21 (M & N)	99.0%			1.0%	100%
*P2Q21O	98.6%			1.4%	100%
*P2Q21 (P & Q)	99.5%			0.5%	100%

Table 5-6

Percent of Item Response and Nonresponse for the Teacher Questionnaire[1] (continued)

Item	Responded	Refused	Don't Know	Not Ascertained	Total
P2Q22	99.0%			1.0%	100%
*P2Q23	99.5%			0.5%	100%
P2Q24A	99.5%			0.5%	100%
P2Q24B	92.3%			7.7%	100%
P2Q25	99.5%			0.5%	100%
P2Q26	99.5%			0.5%	100%
*P3Q1	100%				100%
*P3Q2	98.2%	0.4%		1.4%	100%
P3Q3	95.4%	1.1%	0.4%	3.1%	100%
*P3Q4	98.9%			1.1%	100%
P3Q5	99.3%			0.7%	100%
P3Q6 (A - D)	99.3%			0.7%	100%
*P3Q7	98.9%			1.1%	100%
P3Q8 (A - F)	98.2%			1.8%	100%
*P3Q9	97.1%	1.1%	0.4%	1.4%	100%
*P3Q10A	98.2%	0.4%		1.4%	100%
*P3Q10C	95.3%	1.4%	0.5%	2.8%	100%
P3Q11	98.2%			1.8%	100%
*P3Q12	98.6%			1.4%	100%
*P3Q13 (A - L)	92.5%			7.5%	100%
*P3Q14	92.5%			7.5%	100%
*P3Q15 (A - D)	92.5%			7.5%	100%
P3Q16 (A - E)	92.5%			7.5%	100%
P3Q17	99.3%			0.7%	100%
P3Q18	97.5%			2.5%	100%
P3Q19 (A - F)	98.2%			1.8%	100%
*P3Q20 (A - C)	97.2%			2.8%	100%
*P3Q21	98.2%			1.8%	100%
P3Q22	90.0%			10.0%	100%
P3Q23 (A-E)	90.0%			10.0%	100%
P3Q24	90.0%			10.0%	100%
P3Q25 (A - D)	88.0%			12.0%	100%
P3Q25 (E & F)	86.0%			14.0%	100%
P3Q26 (A - C)	90.0%			10.0%	100%
P3Q26 (D - F)	88.0%		2.0%	10.0%	100%
P3Q26 (G & H)	86.0%		2.0%	12.0%	100%
P3Q26I	88.0%		2.0%	10.0%	100%
P3Q26J	90.0%			10.0%	100%
P3Q26K	88.0%			12.0%	100%

Table 5-6

Percent of Item Response and Nonresponse for the Teacher Questionnaire[1] (continued)

Item	Responded	Refused	Don't Know	Not Ascertained	Total
P3Q27	98.9%			1.1%	100%
P3Q28	98.2%		0.4%	1.4%	100%
P3Q29	98.2%	0.7%		1.1%	100%
P3Q30A	98.6%			1.4%	100%
P3Q30B	98.9%			1.1%	100%
P3Q30C	97.5%	0.4%		2.1%	100%
P3Q30D	98.2%		0.4%	1.4%	100%
P3Q30E	97.2%	0.4%	0.4%	2.0%	100%
P3Q30F	98.2%		0.4%	1.4%	100%
P3Q30G	98.2%			1.8%	100%
P3Q30H	98.2%		0.7%	1.1%	100%
P3Q31	99.3%			0.7%	100%
P3Q32	96.8%	0.4%	0.4%	2.4%	100%
P3Q33	84.7%		1.7%	13.6%	100%
P3Q34	83.0%	1.7%	1.7%	13.6%	100%

responses were coded "Not Ascertained" by project staff in cases where items were left blank by respondents and followup efforts were not warranted or achieved. It should be noted that the percentages reported in Table 5-6 are based on the number of expected responses for an item which varies due to item skip patterns.

Item nonresponse followup efforts were required for 225 questionnaires or 74.5 percent. In part, this high percentage of followup effort was due to the amount of time that it took to complete the questionnaire, as reported by teacher-respondents. As summarized from the responses to Part III, Item 35 of the teacher questionnaire, the average number of person-hours required to complete the questionnaire was 1 hour and 9 minutes, with a range of 10 minutes to 5 hours.

This time requirement was 15 percent over the one hour response burden target established for the teacher questionnaire. The additional time requirements may be accounted for by the added questions related to the topics of "teacher-respondent proficiency in languages other than English," and "teacher and program characteristics for gifted and talented school programs." Approximately 17 percent of the respondents were required to respond to the subset of items addressing non-English language proficiency (Part III, Items 12, 13, 14, 15 and 16), while roughly 16 percent of the teacher-respondents were required to respond to the subset of items addressing "gifted and talented programs" (Part III, Items 21, 22, 23, 24, 25, and 26). As a result, a higher followup rate should be expected in the conduct of the Teacher Survey for the base year study, requiring project staff to allocate additional project resources to followup and data retrieval efforts.

A second factor relative to the high followup effort relates to discrepancies noted during the editing of return questionnaires. The editing process discovered apparent confusions in responses indicating that a teacher-respondent did not have one or more of the sampled students assigned to his/her class while the field test school indicated that the sampled student was assigned to the teacher's class. This problem has been discussed in a preceding section of this report, Section 5.5.4. A related issue stemming from the data editing specifications, suggests that there simply may be too many items that have been identified as "key" items. Project staff should review the edit specifications to determine if alterations are warranted, thereby reducing the volume of data retrieval required for the base year study.

As a result of coding and editing efforts as well as telephone data retrieval activities, several problem items were noted. Each of these items is identified and discussed below.

- Printing Errors:

  (1) The OMB number printed on the questionnaire was incorrect. Computer printed labels bearing the correct number were added to the questionnaires prior to distribution.

  (2) The instructions to Part I read "Questions 2 - 10 apply only to students whom...." and should be corrected to read "Questions 2 - 12 apply only to students whom ...."

  (3) The student matrix printed for Part I (pages 1 and 2), incorrectly numbered the response options for student #30. The item should be corrected to ensure the following order "Yes (1)," "No (2)," and "DK (8)."

  (4) Part II, Question 6 reads "(See back cover for definition)." The final instrument for the base year study should delete this reference.

  (5) Part III, Question 20 contains numeric codes ("2") to the left of each response box. Each code should be deleted.

  (6) Part III, Question 21 contains an incorrect skip pattern reference. Skip pattern should read "(Skip to Q.26)" rather than "(Skip to Q.27)."

  (7) Part III, Question 26 the item statement reading "Student use alcohol" should read "Student use of alcohol."

  (8) Part III, Question 28 the period (.) in the first response option should be deleted to read "No days absent."

  (9) Part III, Question 30 the response scale should be corrected to delete the plus sign (+) after the option 5 hrs.

- Part I, Question 1 -- The wording of this item stem has caused confusion for some teacher-respondents. Respondents who started teaching later in the school year or who may have had the student for a one-semester course are uncertain how to respond due to the September 1986 reference in the item stem. In addition, other teachers have expressed uncertainty about how to respond in cases where students may have dropped out of their class mid-year or mid-term. Finally, some teacher-respondents firmly indicated that they did not have one or more students assigned to their classes, yet the school maintained that the assignment was correct.

  We would recommend rewording the item stem to Question 1 to read "Has this student been assigned to one or more of your classes during the 1988-89 school year?"

One additional problem that arose during the field test concerned the sampling of more than 32 students in participating schools. In such cases, teacher-respondent ratings were limited to 32 students due to the matrix format for Part I of the questionnaire. Prior to finalizing this questionnaire for the base year study, project staff should identify an upper limit for the number of students sampled per school or determine whether exceptions will be handled by altering the questionnaire or its administration procedures.

- Part II, Question 1 -- During editing, project staff were often unable to determine if the order in which teacher-respondents listed classes for Part II of the questionnaire coincided with the designated list provided on the face of the questionnaire. To simplify editing efforts, we would recommend the following modifications: (1) instructions to Part II should state that the respondent list classes, by title and period, following the same order as the list provided on the face of the questionnaire, (2) the write-in format should include a space for title and period (e.g., Title ______________ Period # ______________), and (3) the computer list of classes provided on the face of the questionnaire should be sorted by class period in ascending order.

- Part II, Question 9 -- Many respondents, mostly English teacher respondents, provided more than one textbook title. In addition, respondents were less likely to record information about the publication date and edition number. We would recommend that "primary" be emphasized in this item stem by underlining the word.

- Part II, Question 17a-17j -- Less than four percent of the applicable teacher-respondents used the "Not Covered" response options for these items. We propose no changes to this response scale. However, the mathematics topics listed in this item stem may be too general. This topic will be explored with the mathematics subject matter experts on the NAP.

- Part II, Question 19 -- Less than three percent of the applicable teacher-respondents used the "Every Day" response option. We would recommend modifying this item response scale as follows: Several times a week or more (1), About once a week (2), and Hardly ever or never (3).

- Part II, Question 25 -- The format of this item should be modified to maintain format consistency throughout the questionnaire. Each of the item statements, numbered one through four, should be listed inside all five "class" response blocks.

- Part III, Question 6a-6d -- In total, approximately five percent or less of the teacher-respondents used the "Provisional, probationary, or temporary" and "Emergency" response options. In addition, 62 percent to 73 percent of the respondents used the "No certification in this area" response option. These findings suggest that the item stem should be expanded to include an item statement "6e. Other" or that certificates are not described in terms of subjects, but by other categories (e.g., grade levels). Should the latter be true, the item stem should be modified to reflect the appropriate descriptors.

- Part III, Question 7 -- No respondents utilized the "High school diploma" or "Associate degree/vocational certification" response options. We would recommend combining these response options into one which reads "Less than a bachelor's degree."

- Part III, Question 8 -- Respondents provided majors and minors for more than one degree. We would recommend emphasizing "highest" by underlying the word.

- Part III, Question 13 -- The response options of "Japanese," "Korean," and "Portuguese" were not used by any of the applicable teacher-respondents. In addition, the response options of "Italian," "Greek," "Any Filipino language," and "Polish" were used by less than five percent of the respondents. We would recommend modifying the item stem to include the following item statements only: (a) Spanish, (b) French, (c) German, and (d) Other.

- Part III, Question 15a-15d -- Overall, the response option "Not at all" was used by only one applicable teacher-respondent for only one item statement. We would recommend changing the response options to "Excellent," "Good," "Fair," and "Poor."

- Part III, Question 19 -- Although no response problems were noted, we would recommend adding the following phrase to this item stem, "... in-service education in the subject you teach the majority of the time, have you...". This modification would maintain consistency in response between Questions 18 and 19.

- Part III, Question 20 -- Data retrieval staff indicated that some teacher-respondents replied to this item in reference to the classes listed on the face of the questionnaire. We would recommend modifying the item statements numbered (a) and (b) to include the word "total" (i.e., "Total number of.......).

  In addition, the item should include a "CIRCLE ONE" statement above the numbered response options. Therefore, the word "check" in the item stem should be changed to "indicate."

  Even with these changes, we believe that this question provides ambiguous information. The respondent's point of reference to item statements numbered (a), (b), and/or (c) is never established. Do these responses address only the mathematics, science, English and/or social studies classes taught by the respondent or all classes (e.g., driver education, music, etc.)? We would recommend that this item be dropped or rewritten into several different items.

- Part III, Question 26 -- Each item statement should be numbered (a) through (k).

- Part III, Question 28 -- Less than two percent of the teacher-respondents used the response options "12-15 days absent," "16-20 days absent," "21-29 days absent," and "30 or more days absent." We would recommend deleting these response options and modifying the last option to read "12 or more days absent."

- Part III, Question 30 -- Although no problems were noted, we would recommend editing the item stem to read "How much time do you spend outside your regular school hours on each of the following activities during a typical week."
- Part III, Question 32 -- Less than two percent of the applicable teacher-respondents used the response options "two hours per week," "three hours per week," "four hours per week," and "five or more hours per week." We would recommend deleting these response options and modifying the last option to read "two or more hours per week."

5.8 Linkage of School and Teacher Data to Student Files

One of the key objectives to be met by the School and Teacher Surveys is the linkage of descriptive information about schools, teachers, curriculum, and teacher practices to individual sampled students. The linkage of information about the sampled students' school environment is straightforward. That is, each sampled student's record is matched or linked to a single school record/questionnaire. Of the 1,556 eighth grade students, descriptive school information was matched to a total of 1,396 individual students or 89.7 percent of the student sample. (Note: The total number of sampled eighth grade students varies with respect to the total number of eighth grade students presented in other chapters of this report due to the varying number of eighth grade students sampled per school which was not adjusted for during the Field Test.) The 160 students (10.3 percent) who do not have matched school information are a result of the five school questionnaires coded as refusals or nonresponses.

The linkage of data acquired through the teacher questionnaire is much more complex and is achieved solely through the Class Schedule matrix. The Class Schedule identifies, for each sampled student, the student's teachers in two pre-assigned curriculum areas and the specific courses (i.e., course title and class period or section number) in which the student is enrolled. Thus, the Class Schedule provides the mechanism by which teacher ratings of individual students can be matched to the sampled students as well as matching descriptive course information about the students' enrolled classes.

Data processing of the completed Class Schedules identified 3,112 possible student-teacher and student-course combinations. That is, two teachers and courses were identified for each of the 1,556 sampled eighth grade students. (Note: The total number of sampled eighth grade students varies with respect to the total number of eighth grade students presented in other chapters of this report due to the varying number of eighth grade students sampled per school, which was not adjusted for during the Field Test.)

Of the 3,112 student-subject combinations, individual student ratings and course information were matched to 2,845 student-subject combinations or 91.4 percent of the expected combinations. Of the remaining 267 combinations, 74 were not matched to teacher ratings due to student withdrawals from school, three students were not enrolled in courses in the pre-assigned curriculum areas, and 190 combinations were not matched due to missing teacher questionnaires (144) or due to a teacher-respondent's indicating that he/she did not have the sampled student enrolled in his or her class (46).

Although each sampled student was expected to be matched to two teacher ratings, 142 students were provided ratings by more teacher-respondents than was expected. This additional yield of student-teacher information is a positive, yet unpredictable, result of the Teacher Survey design.

In summary, the matching of school and teacher data to individual students was achieved for approximately 90 percent of the eighth grade student sample. Thus, no alterations are proposed to the School and Teacher Survey designs for the base year effort.

5.9 Summary of Recommendations

Overall, the Field Test of the School and Teacher Survey has been judged a success. Response rates achieved regarding the administration of the school and teacher questionnaire exceeded 90 percent. In addition, item response rates were more than sufficient, while respondents infrequently "refused" to respond to items or responded "Don't Know."

Although all Field Test activities were successfully conducted, several modifications to procedures, materials, and questionnaires have been discussed in the previous sections of this chapter. This final section, summarizes the recommendations which have been suggested to enhance the undertaking of the NELS:88 base year study. Our recommendations are presented and highlighted in the following three broad categories: pre-survey activities, data collection activities, and instrumentation. Each category is summarized below.

Pre-survey activities. Prior to the distribution of questionnaires to respondents, several sources of information were required, and links between these sources had to be maintained in order to meet the overall study design goal of linking school and teacher information to individual sampled students. Data files needed to initiate data collection efforts for the school questionnaire were straightforward and posed little, if any, problems. However, some timing concerns were found in the acquisition and merging of data files and materials necessary for the administration of the teacher questionnaire.

First, a Class Schedule matrix was to be completed by school coordinators in order to identify the sampled students' teachers and classes in the two designated subjects. In some cases, coordinators made errors which required telephone followup contacts by NORC or Westat staff to clarify discrepancies. Second, completion and processing of the class schedule matrix was to be completed at least 10 to 12 working days prior to the Field Test school's assigned survey day. In more than one-half the cases, this target completion date was not met. As a result, in these cases an alternative plan was needed for the distribution and return of completed questionnaires.

The alternative mailing plan proved to be workable for the Field Test because of the small number of schools participating in the Field Test. Specifically, on any given day the number of late arriving Class Schedules that required special processing was low. Should such a plan be relied upon in the conduct of the base year study, we project that extraordinary efforts would be required to deliver questionnaire packages prior to survey day (i.e., manual production of questionnaire and address labels, rather than computer-based procedures, etc.). The alternative mailing plan is not feasible for the base year study unless the proportion of schools requiring such an approach was drastically lower than proportion of Field Test schools.

Consequently, Westat and NORC are discussing ways to avoid the delays experienced in the collection and synthesis of pre-survey information. Completion of the Class Schedule matrix cannot begin until the student sample has been identified by NORC personnel.

As experienced in the Field Test, an average of slightly less than two weeks is required to collect completed Class Schedules. Therefore, Westat and NORC are exploring the possibility of combining the student sample selection and collection of the Class Schedule matrix. One strategy for accomplishing this goal would be to have NORC field staff visit each school to draw the student sample on-site. Once the sample was drawn, the school coordinator could work with NORC field staff to complete the Class Schedule for the sampled students. This approach would reduce the error rate noted in completing Class Schedule forms, reduce the pre-survey data collection time, and allow the preparation of data collection materials to begin earlier.

Data collection activities. Once questionnaire packages were transmitted, remaining survey activities were completed with very few problems. The added burden of tracking questionnaires through two different distribution methods was basically a logistical concern. Additional nonresponse efforts were required for missing and/or incomplete questionnaire packages returned by school coordinators (using the alternative distribution approach). The added logistical concerns and nonresponse followup efforts can be alleviated by modifying timing of the collection of pre-survey information.

Instrumentation. As reported, questionnaire and item nonresponse rates for the school and teacher questionnaires were quite low. In general, the person-hours required by respondents to complete each questionnaire exceeded project staff projections. These findings make it necessary either to reduce the length of both questionnaires to remain within the original response burden targets or to provide respondents with a more accurate assessment of the anticipated response burdens relative to the NELS:88 base year instruments and to anticipate a higher rate of nonresponse and data retrieval followup activities.

Several specific modifications to problematic items have been identified and discussed in the preceding sections (see Sections 5.7.1 and 5.7.2). Overall, directions for completing the questionnaires, individual wording of item stems, and item response scales were well understood by respondents and were effective in acquiring the targeted information.

CHAPTER 6: OTHER FINDINGS

6.1 Records Availability

After completion of the Field Test Student Survey in the eighth-grade schools, NORC Central Office Staff debriefed 24 of the 51 eighth-grade School Coordinators concerning accessibility to student records. The School Coordinator sample represented public and private, as well as rural and urban, eighth-grade schools. The debriefing aimed at assessment of procedures for collection of student records from schools to determine, first, whether it would be more feasible in the base year to collect certain kinds of name-specific student data from school records or from alternative sources (such as parent, teacher, or student questionnaires) and, second, if this information is collected from the schools, whether it would be more effective to use School Coordinators or NORC Team Leaders to obtain it.

When they met in June 1986, members of the National Advisory Panel (NAP) agreed that several data elements would be more efficiently obtained from students' cumulative records than from any other source. Contractors agreed to develop a plan to collect information about students' schedules, their age and race, their handicapped status, limited English proficiency status, school meal program participation and Title I, Chapter-1 eligibility and participation from school records. The Panel held that these proceedings should help to reduce respondent burden, if only to a small degree. There was also the possibility that school records concerning these kinds of student data might be more accurate than questionnaire responses.

However, there could be significant risks and obstacles inherent in this procedure. If school staff, such as the NELS:88 School Coordinator, were used to collect the student data, school burden would be increased. One possible way to reduce the burden on the school was to use NORC Team Leaders, rather than School Coordinators, to look in school files, locate and make copies of the information which NORC is interested in obtaining. For this procedure to be effective in the base year, it is important to know if the schools keep the particular kinds of records that NORC is considering obtaining, whether the records are easily accessible, and if permission would be necessary for Team Leaders to look in school files and copy student records. Should most schools require that special types of permission be obtained before Team Leaders could gain access to school files and student records, an important question would be whether this would be an effective procedure. More specifically, if we have to get individual-level permissions (for instance, from parents) to obtain name-specific student information, it would be unlikely that we would get them all, the result being lost data. Records permissions, if coupled with the other requirements of the survey, could increase the number of individual and school-level refusals, damaging the research effort in an important way. These are some of the central issues which need to be resolved prior to implementation of the base year survey.

In order to address some of these questions, School Coordinators were debriefed. In the debriefing, they reported whether the schools they represented kept the following kinds of student records: student race and sex, handicapped and LEP status, class schedules, school meal programs, and eligibility for Title I, Chapter-1. If the schools did keep these records, School Coordinators noted whether the records were centrally located and easy to find or generate. They also clarified policies concerning the granting of permission for NORC to send in a Team Leader to view or make copies of some of the records.

The overall findings of the School Coordinator debriefing indicate that the kinds of records that NORC is considering obtaining are generally kept by the schools and are easily accessible by school staff (and specifically the person designated as the School Coordinator). Evidence for the availability of relevant student records and for the School Coordinators' accessibility to these records can be found in the field test results as well. During the collection of student rosters in the schools, School Coordinators were asked to add to these rosters information on student sex, race, LEP, and handicapped classifications so that students eligibility for the sample could be determined by NORC. (Data on school meal programs and on Title I, Chapter-1 were not included on the roster.) Central Office Staff report that all of the School Coordinators included the desired information on the student rosters. However, a number of School Coordinators said that permission was needed to put that kind of information on the roster. A few noted that this kind of information was not allowed to be kept on the roster, according to a state directive. When these School Coordinators added the student information to the rosters, they said that they did not want to be held responsible and were not certain of the accuracy of their information, based as it was on their own assessments of student race, sex, handicapped and LEP status.

Another important finding of the School Coordinator debriefing was that while schools generally kept the pertinent kinds of student records and while these records were easily accessible to the School Coordinators, the schools would not usually make their files and records directly available to NORC Team Leaders, without prior permission having been obtained. Procedures for gaining permission varied. Most commonly, explicit parental consent or district, state, or legal permission was necessary before NORC Team Leaders could be allowed to view school files or make copies of student records.

In the following sections, the specific results of the School Coordinator debriefing are presented.

6.1.1 Records on Student Sex and Race

Records on Sex of students are kept in 87.5 percent of the 24 schools represented by the sample of School Coordinators debriefed. The School Coordinators judged these records to be easily accessible to them in 90.5 percent of the schools which kept such records. Records on the Race of students are kept in 70.8 percent of the schools sampled. These Race records are easily accessible in 88.2 percent of the schools which keep such records.

6.1.2 Student Class Schedules

School Coordinators reported that in 95.8 percent of their schools, student class schedules are available. These class schedules are easily accessible in 100 percent of the cases. In the field test, student class schedules were often collected directly from students on Orientation Day in cases in which there was an Orientation Day. However, schedule information exists in a variety of forms, and only sometimes as a "Master Teaching Schedule." Schedule data would usually require additional processing if a common format is to be achieved. Additional processing would entail additional costs and could result in a larger number of coding problems or errors.

6.1.3 Records on Handicapped and LEP Student Status

In 75 percent of the schools, records on handicapped students are kept. Where these records are available, there is complete or 100 percent accessibility. Records on student LEP status are kept in 58.3 percent of the schools sampled. In schools that keep these records, access to the records is easy in 88.2 percent of the cases.

6.1.4 Records on School Meal Program and on Eligibility for Title I, Chapter-1

In 70.8 percent of the schools, there is a school meal program for which records are readily accessible. Records on eligibility for Title I, Chapter-1 are also maintained and easily available in 61.9 percent of the schools.

6.1.5 Summary of Student School Records Availability/Accessibility

The student records (on sex, race, handicapped and LEP status,) class schedules, meal programs, and Title I, Chapter-1 eligibility) which NORC is considering obtaining for the base year survey are kept by most of the sampled schools and are generally accessible to School Coordinators. However, most schools require some type of permission before they would allow a NORC Team Leader to view and copy student records. The kinds of permission which are required are discussed in the next sections.

6.1.6 Kinds of Permission Necessary for Team Leader Access to School Files and Student Records

In the debriefing, School Coordinators were asked what kinds of permission we would need to gain access to the above files. More specifically, they were asked what kind of permission would be necessary for NORC to send in a Team Leader to view or make copies of some of the files. The respondents sometimes indicated that more than one kind of permission was necessary. The situation of multiple answers results in a total number of responses of 31, rather than 24 (the number of respondents). School Coordinators listed Explicit Parent Permission most often (62 percent of responses), followed by District or State Permission, and checking with legal authorities (a total of 58 percent of responses). (When School Coordinators cited legal authorities, they said that it was necessary for them to check with their own district lawyers to see if any laws prohibited their giving out of name-specific student records.) Only 4 percent of responses referred to School Procedures (or a request for permission properly filed). Finally, there was one response (4 percent of the total responses) that the Team Leader can't view school files or records at all.

Within the category of District and State Permissions and checking with legal authorities, the 14 responses which constituted the 37 percent were distributed in the following manner: 4 responses indicating required checking with district lawyers, 2 responses citing approval by state authorities, 7 responses noting required clearance at the school district level, and 1 response referring to a request for permission involving the school principal.

6.1.7 Summary of Required Permissions

It is clear that although the records which NORC is considering obtaining for the base year survey are generally available at the schools, and although these records are usually easily accessible to the School Coordinators, they would not be available to NORC Team Leaders without prior permission of varying kinds. In other words, while the School Coordinators in most cases can easily go through school files and pull out student data to add to rosters (if the data are not already stored on the rosters), Team Leaders would not be able to do this unless they have obtained the appropriate kind of permission beforehand. It seems clear that schools cannot easily allow outsiders to come in and go through files and records containing name-specific student data. School Coordinators would have easier access to the information which is of interest to NORC. However, there remains the problem of over burdening them and the school. And in a few cases it is evident, based on the field test experience, that there would probably still be a requirement for permission before the School Coordinator could release the student data he collected to NORC.

6.1.8 Conclusions

The feasibility of collecting name-specific information on student sex, race, LEP, handicap, class schedule, participation in school meal program, and eligibility for Title I, Chapter-1 from school records needs to be studied carefully. The advantages of collecting these kinds of information from school records rather than from alternative sources (such as parent, teacher, or student questionnaires) are, first, that school records may be more accurate, and second, respondent burden might be decreased. However, there were cases in the field test in which school records were either unavailable or inaccessible to the School Coordinators, who then had to classify students on the basis of their own assessments and who could not vouch for the accuracy of these classifications. Also, if not all the schools keep these kinds of records (or if some of them won't release the information to us), then questions aimed at collecting this information would still need to appear on questionnaires. Finally, school records exist in many formats, whereas a questionnaire imposes a uniform format on the data.

Because the School Coordinators, compared with the Team Leaders, have easier access to student records and would not in most cases (according to field test findings) need to obtain permission before collecting and transmitting to NORC name-specific student data, it would be more effective to use them to collect this information, if it is to be collected from the schools. However, there is a serious risk in increasing the school burden by using the School Coordinator to gather this information. This risk becomes greater if standardized forms are used. For example, it would take the School Coordinator more time to fill out a standard form for each student class schedule than it would take him to photocopy school records, in whatever form they exist. On the other hand, the use of the Team Leaders to collect this information from the schools would reduce the burden on school staff. The process of obtaining the kinds of permission that are required for them to look at school files and copy school records would undoubtedly be complicated and time-consuming. Records permissions, coupled with the other requirements of the survey, could increase the number of individual and school-level refusals, harming the research effort in a major way.

Determination should be made of the accuracy of parental, teacher, and student reporting of the student classifications which NORC is interested in collecting for the base year sample. It may be the case that information from parents, for example, is as accurate as that given in school records. Questions concerning these kinds of student classifications (race, sex, etc.) are already included in the questionnaires. If these data are collected only from respondents (and not from school records), no additional respondent burden (over that which exists now) would be imposed. It could be the case that such respondent burden is less than that imposed on the schools demands on staff time and requests for permissions.

6.2 Student Dispersion and the First Follow-Up Survey

The first follow-up survey of NELS:88 will be conducted in 1990. The sample design for NELS:88 draws upon experiences from other first follow-up surveys conducted by the Longitudinal Studies Branch of the Center for Education Statistics, including HS&B. One significant difference between HS&B and NELS:88 is the grade level of the base year cohort: tenth grade in HS&B and eighth grade in NELS:88. The two year age gap creates fundamental distinctions between the surveys that influence the size of the follow-up effort.

6.2.1 Grade Levels and School Transitions

Grade level organization patterns of schools tend to include tenth and twelfth grades in the same school but are less likely to include eighth and tenth grades. This distinguishes HS&B and NELS:88 first follow-up data collection strategies. HS&B followed up tenth graders two years later, when they were twelfth graders. Because most tenth grade students attend the same school two years later, the base year sample of tenth grade schools served well for a sample of twelfth grade schools. Whereas HS&B could count on finding most students in the same school, probably in intact classes, the situation for NELS:88 is quite different. Most eighth grade students will not attend tenth grade in the same schools. In fact, between 90 and 95 percent of eighth grade students will probably change schools between 1988 and 1990. NELS:88 will have to prepare to locate and track students who have scattered to different schools as individuals rather than as classes.

In addition to the fact that most eighth grade students will not attend tenth grade in the same school building, the period between eighth and tenth grades is often the time during which important family decisions concerning different kinds of transitions are made. Parents may tend to coordinate household moves and job changes with the time of secondary school admissions. (A planning conference held by the Center reported increases in family mobility and job transfers for families with children between eighth and tenth grades.) Also, private school transitions typically occur between eighth and tenth grades. Students leave public schools for independent or preparatory schools; there are substantial changes in the enrollments of diocese schools; and elementary private schools end their programs between these grades, sending students into a variety of public and independent or private religious schools. These transitions are not well studied and pose challenges for locating and following students in the first follow-up. In light of the discussions concerning public versus private school effectiveness, this is an important set of students to follow. Two important ramifications of the two year difference in base year grade level between the first follow-up of HS&B and NELS:88 are, first, cost and efficiency considerations related to student flow between grade levels and, second, logistics for tracking individual students.

6.2.2. Prediction of Student Dispersion and Size of Follow-Up

It is important to start planning now for the first follow-up. Part of this planning effort entails prediction of the size of the effort that will be required in 1990--specifically the degree of dispersion by individual students between the eighth and tenth grades and the number of schools to which one would have to go in order to capture the largest percent of students possible through a reasonable expenditure of time and money. A key question is the following: if the goal is to capture at least 85 to 90 percent of the base year sample two years later, how many tenth grade schools should one expect to include in the follow-up effort? There are a couple of ways one can try to predict student dispersion and the size of the 1990 effort based on the results of the field test surveys.

An important way to make a prediction concerning the amount of student dispersion that will occur between eighth and tenth grade is to rely on student reports of their plans. On the student questionnaires (Question 11), each student was asked to name the high school that he or she expected to attend. The accuracy of student assessments needs to be closely examined.

Student reports of high school plans can be checked against parent reports in those schools in which there was also a parent survey. On the parent questionnaires, parents were asked in question 44 where they expected their child to go to high school. Another way to check the accuracy of student reports is to compare them with the reports of the principals. In the school questionnaires, principals were asked (in question 9) to provide the names of the high schools that students in their schools would commonly attend upon completion of the eighth grade and the percent of students they expected to go to each school.

Once student responses have been checked for accuracy, their patterning can be analyzed in a spreadsheet format according to cluster size. A cluster is a pattern in which a group of students move on together to the same school. And cluster size analysis serves as a way of organizing ways to make decisions concerning sampling and retention of students in the sample. It will be important to determine a minimum cluster size to follow-up on because it would not be economical to try to capture all the students, as they scatter individually to a large number of tenth grade schools. The effort in manpower required to locate and interview each student two years after the base year survey would be so great as to be unfeasible in terms of cost and time. (While this is generally true, it may be possible to use central testing sites for the follow-up in big cities where the number of student respondents is large. If central urban testing sites were used in the follow-up, the effort and cost would not be as large.)

Because of the large size of the effort and the high cost of following each individual student, it has been suggested that a minimum cluster size be determined in relation to the percent of students it would follow-up on. Determination of a specific minimum cluster size would depend upon its ability to capture the largest percent of students in the follow-up survey through a reasonable expenditure of time and money. If a decision was made to follow-up all students going to high school in cluster sizes of, for example, three or more, one would need to know what percent of the original sample would be captured. How much would be added in completeness (measured in percent of students followed up on) by adding a cluster? Another important question is whether different minimum cluster sizes should be established for public and for private schools, due to the importance of keeping private school students in the sample and the greater dispersion of students from other (non-Catholic) private schools.

In other words, there are two central questions. The first is how to follow the greatest number of students in the most economical kind of unit. The second is how (or to what degree) to follow those who do not fit into that pattern. There may be a difference between the number of students overall and the numbers of students in various sectors that should be followed.

It should be noted that the focus in this analysis is on ways to maximize the number of students that could be followed in a school-type setting, by having NORC interviewers visit the students' schools in order to pursue students in different sized groups--or even individually. Alternatives to this strategy that are not discussed here but which may be used to follow small numbers of students who have scattered widely, include going through the parents rather than through the school, or having students in an urban area come from their different schools to a central testing and interviewing site.

Three kinds of patterns may result from students' transfers to high school. One pattern is that which will probably occur in a small number of cases in urban areas where students from a number of eighth grade schools located near each other will merge into a smaller number of high schools. A second pattern expected to occur in a substantial percent (and perhaps even in a majority) of the cases, is the movement of all or 85 to 90 percent of the students from an eighth grade school in a group to the same high school. A third pattern which should occur relatively frequently is one in which students scatter widely. This pattern is likely to be found in situations in which the students have no way to continue on as an intact group. It will probably occur most often in cities where there are many magnet schools and in the other private schools.

Another issue that needs to be examined is the difference in response patterns, student/parent agreement, and predicted dispersion patterns based on variables such as school sector (whether public, Catholic, or other private), school grade span, urbanicity, and state.

6.2.3 Student and Parent Response Patterns Concerning Anticipated High School Attendance

In the field test, parent surveys took place in 34 of the 51 eighth grade schools, while student surveys occurred in all 51 schools. Because student questionnaires from one school with a parent survey were lost in the mail, for purposes of this analysis, 33 of 50 schools had parent surveys. Student responses provide a more complete base than do parent surveys for the making of predictions, because they took place in all of the sample schools. Before making predictions about the degree of student dispersion and the size of the 1990 effort based on student reports of plans, it is necessary to closely examine student response patterns to assess their completeness and likelihood of accuracy.

The 33 schools with parent surveys contained a total sample of 908 eighth grade students. Of the total number of possible student respondents, 97 percent gave responses. These responses included the names of high schools that students expected to attend and "don't know" answers. Of all students in the sample, 95 percent gave the name of a specific school and only 2 percent said they did not know where they would go to high school.

The set of parent responses was not as complete as that of the students. Of 908 potential parent respondents in the sample, a much larger number (21 percent) either did not give an answer to the specific item or to the questionnaire or gave a refusal. The result was a significantly lower percentage of parental responses. Of all possible parental respondents, 76 percent (as opposed to 95 percent of the students) named particular high schools that they expected their children to attend and almost 4 percent said they did not know where the child would go.

These figures suggest that on this particular question (i.e., where the eighth grader will go to high school), the students might be better respondents than the parents, at least in terms of providing the name of a high school. Because only the first 609 of 775 parent questionnaires were subject to retrieval, lack of retrieval on the last 166 could have slightly mitigated parent response rates. But retrieval of even 50 percent more parent responses would not eliminate the student advantage. The fact that students are good reporters explains parent-student differences as much or more than lack of full retrieval.

Before turning to a comparison of student and parent responses and their degree of correspondence, it is useful to examine response patterns in terms of the variables of eighth grade school sector, grade span, urbanicity, and state.

6.2.3.1 Student and Parent Responses by School Sector

Of the 908 students in the schools with parent surveys, 628 (or 69 percent) attend eighth grade in public schools, 140 (or 15 percent) go to Catholic schools, and another 140 (or 15 percent) go to other private schools. There was no significant variation in the percent of students from different sectors naming a high school they expected to attend. Of sample eighth graders, 98 percent of Catholic students, 93 percent of other private school students, and 95 percent of public school students named particular high schools they expected to attend. The percent of other private students saying they did not know where they would go to high school is also slightly higher, at 4 percent.

Parents' response patterns varied more than students' response patterns according to school sector. While 89 percent of Catholic school parents named a high school they expected their child to attend, only 74 percent of public school parents, and an even smaller 58 percent of other private school parents named a high school. The highest number of "Don't Know" responses (6 percent) and of nonresponses (no answers given either to the item or to the questionnaire itself)--at 36 percent--occurred among parents of other private school students, followed by public school parents and then Catholic school parents. Parents of Catholic school students named specific high schools most often and gave "Don't Know" responses least frequently.

The fact that response patterns for other private school students and their parents were not as good (because fewer respondents named specific high schools), may reflect the unique situation of the other private schools. Private schools which are non-Catholic religious or independent schools generally do not belong to a system of schools (as do public or Catholic schools). Students tend to move on from such schools to a greater number and variety of kinds of secondary schools. Greater degrees of uncertainty (and therefore perhaps larger numbers of non-responses or "Don't Knows") may relate to the fact that, at least in the case of prestigious independent private schools, affluent and mobile parents may not know where the child will go to school and the students' plans may be dependent on a competitive application and acceptance procedure. There will also be a lot of sector crossing by other private school students. (Sector crossing is described in detail in section 6.2.6.1)

6.2.3.2 Student and Parent Response Patterns by State, Urbanicity, and School Grade Span

The response patterns of students and parents were examined in terms of the following variables: the state in which the school is located, the urbanicity classification of the school, and the school grade span. The percents of students and parents naming a specific high school are assessed in terms of each of these variables. The purpose of this analysis is to look for variations in response patterns that might help predict the amount of dispersion which will occur.

Examination of student and parent response patterns in terms of the variable of state location does not reveal any significant geographic differences. Out of a possible total of 908 students, 97 percent of California students named a particular school, as did 99 percent of Florida students, 99 percent of Illinois students, 99 percent of New York students, and 97 percent of Texas students. There was a little more variation in parent response patterns, but its significance is not clear. Of the total number of parents, 89 percent of California parents, 96 percent of Florida parents, 100 percent of Illinois parents, 95 percent of New York parents, and 96 percent of Texas parents named specific schools that they expected their children to attend.

Analysis of student and parent response patterns in terms of the variable of school urbanicity classification is difficult because 8 schools in the sample lack file type urbanicity classifications. Among these are the two rural schools belonging to the parent survey, and it is hard to determine which schools these are. However, a comparison of response patterns in urban and suburban schools is possible. In the schools listed as urban, 97 percent of the students named high schools that they expected to attend. In suburban schools a slightly higher number of students (99 percent) named high schools. The difference between response patterns in urban and suburban schools was more pronounced in the parent case. While 92 percent of parents of students in urban schools named specific high schools that their children would attend, 96 percent of parents of students in suburban schools named specific high schools. Although differences between urban and suburban schools in response patterns are minimal, the results do confirm the view that in urban areas it may be more difficult for students or parents to name a high school, because there are so many more options (such as magnet schools), in the city.

Examination of student and parent response patterns in terms of the variable of school grade span indicates that there is a slightly higher number of students (99 percent) making a transfer to high school after eighth grade who named a specific high school. Those who are attending schools in which there is no transfer to another school after eighth grade (but rather one after ninth grade or none at all), named high schools 97 percent of the time. It is a little surprising that such a high percentage of the students who will not make an immediate transition could name a high school. Parent responses diverged further than student responses. While 96 percent of the parents of students making transfers after eighth grade named specific high schools, only 88 percent of parents of students who are not making a transfer after eighth grade named specific high schools. This finding suggests that eighth grade students and their parents have a somewhat better idea of high school plans when the transfer to high school occurs after the eighth grade rather than at a later time.

6.2.4 Comparison of Student and Parent Responses Concerning Anticipated High School Attendance

Parent answers were collected as a check on the accuracy of student responses to the question concerning the high school they expected to attend. The higher the percent of agreement between parent and student responses, the greater the chances are that student answers are reliable and, therefore, reflect fairly accurately the kinds of transitions we can expect to occur between the eighth and tenth grades. When parent and student both named the same high school, it was counted as pair agreement, and when they named different high schools, it was tabulated as pair disagreement.

Across all the school sectors, out of a total number of 908 possible pairs of student and parent responses, only 76 percent of the cases yielded analyzable pairs (or pairs in which both parent and student either named a particular high school or said they did not know). In 63 percent of the cases both parent and student named the same high school as the one the student would attend. In only 7 percent of the cases parent and student named different high schools. In just over one percent of cases the student named a school but the parent said "Don't Know," whereas in almost 4 percent of cases the parent named a school but the student said "Don't Know." While only 2 percent of students failed to respond to the question (not naming a school or saying they did not know) although their parents responded, 20 percent of parents did not provide an answer to the question although their children responded. This is a noteworthy finding, given the fact that on other cross-tabulation analysis the student non-response rate was much higher than that of the parents.

Overall comparison of student and parent responses indicate that the percent of agreement between these sets of respondents (at 63 percent) is not as high as one would hope. But active disagreement between parent and student is not prevalent, either. Rather, there are many cases in which one or the other respondent said he did not know what high school the student would attend, or failed to answer the question. If agreement between parent and student responses is taken as an indicator of the accuracy or student responses, then in 63 percent of the cases, students should make the kinds of transitions to high school that they indicated in the questionnaires.

6.2.4.1 Pair Agreement and School Sector

The pairing of parent and student responses yields different results when analyzed in terms of the school sector of respondents. Parent and student pair agreement (i.e., the naming of the same high school by both respondents) was highest in the case of the Catholic schools (76 percent) and lowest in the case of the other private schools (48 percent). Public school student/parent agreement (64 percent) fell in between the percents for the two kinds of private schools. Somewhat surprisingly, the amount of student/parent disagreement (or the naming of two different high schools) was also highest (at 12 percent) in the Catholic school case. But there were more cases with either parent or student non-responses and "Don't Know" answers in the other private and public schools than in the Catholic schools. In the other private school sample there was an especially high number of cases (36 percent) in which students responded to the question (by naming a high school or saying they did not know), but parents did not give any response. There was also a slightly higher number of both parent and student "Don't Know" answers in the other private schools. The evidence indicates that Catholic school parents and students have the clearest sense of where the student will go to high school and that they agree most often, followed by public school parents and students. Other private school parents and students agree less than half the time on anticipated high school attendance. These findings are not surprising, given that other private schools generally do not belong to any kind of school system and their graduates move on to a variety of kinds of high schools.

6.2.4.2 Student/Parent Agreement in Terms of State, Urbanicity, and Grade Span of School

Another way to examine student/parent agreement patterns is in terms of the variables of school state location, urbanicity classification, and grade span. In this manner, it is possible to determine whether there are geographic, urban/rural, or school organizational differences that might contribute to variations in student/parent agreement patterns.

The results indicate that there is a lot of variation according to the state location of the schools in degrees of parent and student agreement (the naming of the same high school by both). Out of the total number of possible pairs of students and parents, there was agreement in 73 percent of the Illinois and 73 percent of the Florida cases, followed by 65 percent of the Texas cases, 59 percent of the California cases, to a low of 35 percent of the New York cases. One possible explanation for the much lower percent of agreement between parents and students in New York is the prevalence of magnet schools in the city. (Four of the five New York schools included in the parent survey were urban schools.) If parents and children are faced with many schooling options, it is likely that there will be a lower degree of consensus between parents and children regarding future plans.

In the analysis of school urbanicity classifications, again the problem arises that eight schools lack urbanicity classifications and that the two rural schools are among these unlabelled schools. In the urban and suburban school comparison, though, it is possible to see clearly that there is a higher degree of parent/student agreement concerning high school attendance in the suburban than in the urban schools. While parents and students agreed in 67 percent of the suburban schools, they agree in only 52 percent of the urban schools. Because suburban school districts generally provide fewer schooling options and usually do not have magnet schools, it is not surprising that a high level of agreement would be found between parent and student views on high school attendance.

There was also a higher level of agreement between student and parent responses in those schools in which a student transfer is made after eighth grade than in those schools in which the transition to a new school comes later (after ninth grade) or does not occur at all (as in K-12 schools). In those school situations in which a transfer is made after eighth grade, students agreed with their parents (and named the same high school) 66 percent of the time, while in those school situations in which no transfer was made after eighth grade, students agreed with their parents only 50 percent of the time.

6.2.5 School Principals' Reports on the Projected High School Attendance of Their Students

Another way (besides use of parent report) to check the accuracy of student reports concerning expected high school attendance, is to compare them with the reports of their school principals. In the school questionnaire, the principal was asked (in Question 9, Part One) to provide the names of the schools that students from his school would commonly attend upon completion of the eighth grade. He was also asked to indicate the percentage of students that would usually go to each school. He could name up to four different schools.

6.2.5.1 Comparability of Principal and Student Responses

One important problem emerges in the attempt to compare principal and student responses. While principals were asked what schools students commonly go to after the eighth grade, students were asked the name of the high school they expected to attend in tenth grade. Principal and student responses are not directly comparable in all cases. Students attending eighth grade in middle schools (grades 7-9) and K-12 schools make no transfer to high school after the eighth grade, remaining instead in the same school. If comparisons between student and principal responses will be made in the base year, as well as in the follow up, it will be important to phrase the question concerning future educational plans similarly for both sets of respondents. One way to facilitate comparability would be to ask the principals where their eighth graders commonly go to high school for tenth grade.

6.2.5.2 Sample for Student and Principal Comparisons

It was decided to compare the responses of students from those schools which had parent surveys with the responses of the principals from those schools. This way it would be possible to examine the same set of individual-level student responses which were used in the comparison with parent responses, providing continuity in response pattern analysis. The parent subsample should not be different from the rest of the sample schools, except that for the parent survey there was over sampling of private schools in order to make some generalizations and there was also some under representation of rural areas. It is predicted that there will be more dispersion of students and less agreement between students and principals in the private schools. In rural areas where there are fewer schooling options, there is likely to be more agreement between students and principals.

The subsample of 34 schools which had parent surveys did not yield 34 analyzable pairs of student and principal responses. The school with the lost student questionnaires and two schools in which the principal either gave a refusal or did not return the questionnaire had to be eliminated from the comparisons. Five more schools had to be removed because they were KC (1 case), 7-9 grade schools (3 cases), or had no details of grade span on record. In these schools, there was either no transfer of students after eighth grade to high school or no way of determining if a transfer occurred. Of the remaining 26 principal questionnaires, three more had to be excluded from the comparison with student responses because the principals (in 2 cases) had not named specific schools to which the students would transfer or had not given any percentages (in one case) to indicate how many students went to each school. Therefore, the final subsample which yielded analyzable pairs of student and principal responses relevant to projected high school attendance was 23.

This subsample of pairs of principals and students included schools from all 5 states (4 in California, 5 in Florida, 6 in Illinois, 6 in Texas, but only 2 in New York). There were 4 Catholic, 3 other private, and 16 public schools in the subsample. With respect to urbanicity classifications, 7 were suburban, 9 were urban, and 7 were blank. (For unclear reasons, all cases in the subsample from Florida lacked urbanicity classifications.)

6.2.5.3 Principal and Student Response Analysis and Comparison

For each school in the subsample, the percent of student who said they expected to attend one of the high schools that the principal had also named as one commonly attended by his students was determined. The percents of students planning to go to each of the schools listed by the principal were compared with the percents which the principal himself had given for each school. A formula was developed for determining the degree of agreement which existed between the responses of the principal and those of the students. A high degree of agreement was indicated when 85 percent or more of the students said they expected to attend the school (or schools) named by the principal. Allowance was made for the principal to be a few students off in his estimate. (The clustering of agreement percentages between 85 and 90 percent influenced selection of 85 rather than a high number as the cut off point for a high agreement assessment.) Moderate levels of agreement were assessed to be those ranging from about 70 to 84 percent. In other words, between 70 and 84 percent of the students in an eighth grade school agreed with the principal's response concerning projected high school attendance. Low levels of agreement were found to be those of less than 70 percent correspondence of student responses with principal's responses.

There was a high level of agreement between the students and principal in 16 out of 23 cases (70 percent of cases). In each of these cases, 85 percent or more of the students in a school sample planned to attend a school that the principal had listed as a common destination. There were moderate levels of agreement between the students and principal in 4 more schools (or 17 percent), indicating that between 70 and 84 percent of the students planned to attend schools named by the principal. In only 3 cases (13 percent) were there low levels of agreement between the students and principal, indicating that less than 70 percent of the students planned to attend schools that the principal had listed. These levels of student/principal agreement are quite high. If the principal's report is taken as a check on the accuracy of the student report, it would have to be concluded that the student reports are generally accurate and, therefore, indicate the kinds of transfers which will actually occur between the eighth and tenth grades.

The amount of agreement that existed between students and principal in each school varied from a high of 97 percent to a low of zero. In one other private school, the schools listed by the students and by the principal were totally divergent. (Although students listed 17 different high schools, none of these was among the 3 listed by the principal.) The principals of these 23 eighth grade schools named a total of 50 high schools that their students would attend, while the much larger number of students named 113 high schools. Eight principals named a single school to which 100 (or a slightly smaller percent of their students) commonly go. In only one case did all the students who responded name a single school. The overall average percent of agreement of student responses with those of the principal was 79 percent.

6.2.5.4 Student/Principal Comparisons by State, Urbanicity, and Sector

Variation in student/principal agreement patterns by state is difficult to assess because the subsample is small and it is part of a larger non-probability sample of schools in only five field test states. The average percent of agreement between student and principal varied from a high of 92 percent in Illinois, to 86 percent in Florida, 72 percent in Texas, 66 percent in California, and 63 percent in New York. The lower percent of agreement found in New York may be a reflection of the prevalence of magnet schools there and the fact that much dispersion is common in large cities. But because only two New York schools belong to the subsample of analyzable pairs of student/principal responses, and because those schools are both urban, it is impossible to make any kind of generalization about the state of New York on the basis of these findings.

Variation in the average amount of agreement found between the responses of students and principals in terms of school urbanicity classification is also difficult to assess. Seven schools in the subsample (including all of the schools in Florida) lacked urbanicity classifications. None of the 23 schools which had an urbanicity classification were designated rural schools. (Rural schools may have been present in the subsample with a blank urbanicity classification.) The average level of principal and student agreement for urban schools can be contrasted with that of the suburban schools, though. In urban schools students plan to attend the same schools listed by their principals in an average of 66 percent of the cases. For suburban schools the average percent of agreement is higher, at 79 percent. This number would be still higher (89 percent) if one school with totally discrepant principal/student responses was eliminated from the comparison. It is not surprising to find a higher degree of agreement in the suburbs than in the city because there are often fewer schooling options and students are more likely to move on to high school in a relatively intact group. Of the cases in which a principal named a single high school as the destination of all or most of his students, 4 schools were located in the suburbs and only 2 in the city (with 2 remaining schools unclassified).

As noted, the subsample included 4 Catholic, 3 other private, and 16 public schools. The average amount of agreement (or of correspondence of student responses to principal responses) found in the public eighth grade schools was 86 percent, followed by 81 percent in the Catholic schools, and then 36 percent in the other private schools. In the 3 other private school cases, there was complete discrepancy between principal and student responses in one case, a low 15 percent agreement level in a second case, and 93 percent agreement in the third case.) It is noteworthy that the percents of agreement analyzed by sector confirm the prediction that dispersion will be greater (and that, therefore, agreement will be lower) in the other private schools than in the Catholic and public schools (with the exception of public schools in large cities).

6.2.5.5 Summary of Comparison of Student and Principal Responses

The checking of student reports concerning high school choice against the reports of their principals reveals a great amount of agreement between the two sets of respondents. In only 3 out of 23 cases was there a great divergence between the reports of students and principals. This finding suggests that student responses to the question on expected high school are fairly accurate and probably reflect to a large extent the kinds of student transfers which will occur between eighth and tenth grades.

Although they result from analysis of pair comparisons in a small subsample of field test schools, these findings suggest that in situations where dispersion is expected to be great (in large cities such as New York and in other private schools), the average level of student and principal agreement regarding high school attendance is lower. Alternatively, higher levels of student/principal agreement are found in suburban schools and in public schools, confirming the prediction that smaller amounts of student scatter will occur there.

6.2.6 Student Dispersion Between Eighth and Tenth Grade

In the total sample of 50 schools (including those with and without parent surveys and excluding the school with the lost student questionnaires), students listed a total of 266 different named high schools that they expected to attend. Student dispersion between 1988 and 1990 will be great. Before turning to a discussion of ways of analyzing total sample student response patterns in order to predict the amount of dispersion and the number of schools to which it would be necessary to go in 1990, it is helpful to look at student dispersion patterns in terms of the key variable of school sector. It is important to consider the prospect of school sector crossing for two reasons: first, that students can be tracked if they leave one kind of school system for another and, second, because comparisons between the effectiveness of public and private schooling are central to the design of the study.

6.2.6.1 Dispersion by School Sector and Anticipated Sector Crossing

Students in the 5 sample Catholic schools named 44 different high schools; students in the 7 sample other private schools named 60 high schools; and students in the remaining 38 public high schools named 162 high schools. These figures indicate that dispersion in the private schools (and especially in the other private schools) will be proportionally higher than in the public schools.

The field test results also indicate that sector crossing will occur in a significant number of cases. By "sector crossing" is meant the movement of students from one kind of school sector, such as the Catholic, to another kind of school sector, such as the public. The eighth grade school sector classification of each respondent was cross-tabulated with the sector classifications of the high school he said he would attend ,in order that the degree of sector crossing in the first follow-up study could be anticipated.

Of the students presently going to Catholic eighth grade schools, 71 percent said they planned to attend private religious high school (probably Catholic school in most cases), 20 percent said they expected to enroll in public high school, and less than one percent reported they planned to go to a private non-religious high school. (Eight percent said they did not know.) (The answer codes for the sector of the anticipated high school did not distinguish between private Catholic and other private religious schools. Rather, students could select public, private religious, or private non-religious high school as their objective.) The fact that as many as 20 percent of the Catholic students planned to go to a public high school seems surprising at first. But this figure appears more reasonable after a look at the QED to determine how many Catholic high schools there are in the country. The QED figures indicate that there are only 1,462 Catholic senior high schools, compared with 15,536 public senior high schools in the United States. Therefore, it is not surprising that many Catholic school eighth graders would plan to go on to public high school.

Of the public school eighth graders, a large percent (94 percent) planned to continue on to public high school, a little over one percent intended to go to a private religious school, and less than one percent expected to transfer to private non-religious high school. (There were 3.5 percent "Don't Know" responses.) If student projections are fairly accurate, a significant amount of sector crossing by public school eighth graders should not be expected.

Other private school eighth graders said they would attend private religious high school in 48 percent of the cases, followed by public high school in 30.5 percent of the cases, and private non-religious high school in about 17 percent of the cases. (Five percent said they did not know.) These figures are somewhat misleading because many of these eighth graders are already attending a private religious school, but this fact is not apparent because the category "other private" includes (without distinguishing between) both private non-Catholic religious and non-religious independent schools. The other private school eighth graders will be involved in more sector crossing than will students from Catholic or public schools.

6.2.7 Clusters of Specified Sizes

A useful way to assess the size of the 1990 follow-up effort--the dispersion of individuals and the number of schools one would have to go to in order to capture the largest feasible percent of the base year sample--is to examine cluster sizes, the patterns in which groups of students move on together to another school.

One important question is whether a particular cluster size (for example, three) should be set for all schools and students followed up only to the extent that they move on to high school in groups of that size (three) or larger. To repeat, the goal would be to select a minimum cluster size (or sizes) which would allow for the follow-up of the largest number of base year students as tenth graders in the most economical kind of unit.

The results of the student survey high school choice show that as the minimum cluster size to follow-up is decreased, increasing percentages of students are gained up to a certain point. Then the curve flattens out, and one gets only a few more students each time a cluster is added. This phenomenon brings up the issue of whether it is worth the tracking effort to capture those few students, who,for example, are moving on to high school in clusters of only one, or even two, individuals. How many more students are added to the sample of base year students followed up on two years later if a decision is made to pursue clusters of two, rather than of three, students? This is the kind of issue that must be resolved.

Another central issue is whether to suggest that the same minimum cluster size be followed up on for all sectors of schools or--due to the importance of protecting the sample of private schools--whether a smaller cluster size should be set for private than public schools. While it is important to follow-up on at least 85 to 90 percent of the overall base year eighth grade sample two years later, it is also desirable to maintain the same representation of public, Catholic, and other private school students in the follow-up as in the base year sample. For this reason it is necessary to consider if different strategies should be used to follow-up on the public and the private school students.

Below, alternative strategies are examined with respect to cluster size, percent of students captured in the follow-up, and the size of the effort (overall, and distinguished for public and private schools). The first strategy considered is the setting of the same minimum cluster size for all schools, regardless of their sector. If this was the strategy selected, it would be necessary to decide which cluster size works best to capture the largest percent of students for an economical effort. The second strategy considered involves the setting of different minimum cluster sizes for public and private (and maybe even for Catholic and other private) schools. For example, one might want to try to follow all other private (and maybe also all Catholic) students, but follow public school students only in clusters of two, three, or four (selecting one of these three as the minimum cluster size).

6.2.7.1 Setting a Single Minimum Cluster Size for Students in all Sectors

In this section cluster sizes are examined. Analysis of cluster sizes helps to facilitate decision-making concerning sampling and retention of students in the sample. To repeat, the objective is to determine which minimum cluster size (or sizes) would allow one to capture the largest number of field test student sample two years later for a cost-efficient effort.

Several options for determining the size of the first follow-up effort can be presented for consideration. Table 6-1 shows counts of clusters of various sizes based on student reports concerning anticipated transfers to high school. Varying according to minimum cluster size and distinguished by school sector, the table presents the number of schools it would be necessary to visit to pursue varying percents of students. Caution should be exercised in interpreting these data because they are based on student expectations, and we can not know how good the students' predictions are, even though they are somewhat confirmed by parent and principal predictions. Also, again there is the problem of trying to generalize to all states from a non-probability sample in five field test states.

If the minimum cluster size was set for all sectors at greater than five students moving as a group to another school, it would be possible to capture 80 percent of the public school students two years later, but only 58 percent of the Catholic school students, and a mere 35 percent of the other private school students. To pursue these students, one would have to go to 43 public, 7 Catholic, and 3 other private schools.

Use of a minimum cluster size of five would allow one to capture 83 percent of public school students (by going to 48 schools), 65 percent of Catholic school students (by going to 9 schools), and 41 percent of other private school students (by going to 5 schools). The use of a minimum cluster size of five facilitates the follow-up of a higher percent of students in each sector but requires a larger effort in terms of the increased number of schools which it would be necessary to visit.

If the minimum cluster size was set at four, one could follow-up on 85 percent of public school students (by going to 55 schools), 74 percent of Catholic school students (by going to 12 schools), and 49 percent of other private school students (by going to 8 schools).

Compared to the options of setting cluster size at greater than five or at five, setting it at four would capture public school students in the percentage desired (i.e., 85 percent or more) but would still fail to achieve optimal percents of the private school students.

Setting a minimum cluster size of three for all sectors of students would allow one to follow-up on 87 percent of public school students (by going to 61 schools), 83 percent of Catholic school students (by going to 16 schools), and 57 percent of other private school students (by going to 12 schools). Although the percent of Catholic students that would be captured through use of this cluster size approaches the minimum percent desired, the percent of other private school students still falls far short.

If one set a minimum cluster size of two for all sectors, it would be possible to capture 89 percent of the public school students two years later (by going to 72 schools), 88 percent of the Catholic school students (by going to 20 schools), and 71 percent of the other private school students (by going to 23 schools). In this case, the desired sample sizes of public and Catholic students would be preserved, but the other private school sample would still be deficient.

Finally, if the minimum cluster size was set at one, and each student was followed individually, it would be possible to capture 97 percent of the public school students (by going to 160 schools), 99 percent of the Catholic school students (by going to 35 schools), and 95 percent of the other private school students (by going to 60 schools). Data are missing on the questionnaires (regarding high school attendance plans) for the remainder of the students, and that is the reason percents used here do not add up to 100 percent. However, despite this problem of missing data, other locator information would be available for use in tracing students in the follow-up. Of course, every effort would be made to pursue 100 percent of students in all sectors. Although the use of a minimum cluster size of one would allow for follow-up on the largest percent of students and would facilitate the setting of a single minimum cluster size for all school sectors, while still capturing the desired percent of each sector sample, it would entail a huge effort. It would be both time-consuming and expensive to try to trace all of these students as they transfer individually (as well as in groups) to such a large number of different high schools.

Use of a minimum cluster size of four, five, or more than five for all sectors would not capture the desired percents of private school students in the follow-up. Use of a minimum cluster size of two would allow for follow-up on a larger percent of the sample than would use of a cluster of three, but it would also require a larger effort. Use of a cluster size of two would not capture the desired numbers of other private school students. Even the use of a minimum cluster size of three would fall short in this. If the minimum cluster size was set at one, the effort required to locate and interview each student would be too large to justify the cost and time required

TABLE 6-1

TRANSFERS OF SAMPLE STUDENTS TO HIGH SCHOOLS
COUNTS OF CLUSTERS OF SPECIFIED SIZES
A. PUBLIC SCHOOL SECTOR

ID	TYPE	TOTAL N	GT 5	N STU'S	5	N STU'S	4	N STU'S	3	N STU'S	2	N STU'S	1	N STU'S	MISS. DATA
40	Public	28	1	25									3	3	
50	Public	19	1	18									1	1	
60	Public	29	2	25									2	2	2
70	Public	29	2	27											2
80	Public	30	2	22	1	5							2	2	1
100	Public	28	1	27											1
110	Public	29	1	20	1	5					1	2	1	1	1
120	Public	30	1	25									5	5	
130	Public	26	1	19	1	5							2	2	
140	Public	26	1	20			1	4					1	1	1
260	Public	28	1	23							1	2	3	3	
270	Public	30	1	27									1	1	2
280	Public	32	1	26					1	3	1	2			1
290	Public	29	1	25									3	3	1
300	Public	28	2	25									3	3	
310	Public	29	2	24					1	3			1	1	1
380	Public	28	1	26									1	1	1
390	Public	30	1	29									1	1	
400	Public	38	1	37									1	1	
410	Public	31	1	27							1	2	2	2	
420	Public	27	1	26											1
430	Public	29	1	27									2	2	
520	Public	33	1	8			3	12	2	6			7	7	
530	Public	31	1	29									2	2	
540	Public	24	1	10			1	4			1	2	8	8	
550	Public	24	1	9	1	5					1	2	7	7	1
560	Public	29	1	11					1	3	3	6	9	9	
590	Public	24	1	20									2	2	2
690	Public	25	1	22									3	3	
700	Public	29	1	26									2	2	1
710	Public	29	1	25							1	2	1	1	1
720	Public	21	1	14			1	4					3	3	
730	Public	27	1	10	1	5			1	3	1	2	4	4	3
740	Public	26	1	24											2
750	Public	26	1	21									2	2	3
760	Public	29	1	23			1	4					1	1	1
770	Public	28	1	28											
830	Public	29	1	27									2	2	
Sum	All	1067	43	857	5	25	7	28	6	18	11	22	88	88	29
Pct		100%		80%		2%		3%		2%		2%		8%	3%
Cum		38	43	80%	48	83%	55	85%	61	87%	72	89%	160	97%	100%
Pred # Publics			905		1,011		1,158		1,284		1,516		3,368		

TABLE 6-1 (CON'T)

TRANSFERS OF SAMPLE STUDENTS TO HIGH SCHOOLS
COUNTS OF CLUSTERS OF SPECIFIED SIZES

B. OTHER PRIVATE SCHOOL SECTOR

ID	TYPE	TOTAL N	GT 5	N STU'S	5	N STU'S	4	N STU'S	3	N STU'S	2	N STU'S	1	N STU'S	MISS. DATA
20	Private	40	1	18					1	3	1	2	11	11	6
30	Private	28					1	4	1	3	5	10	10	10	1
90	Private	16	1	11							1	2	3	3	
250	Private	30	1	25							1	2	2	2	1
370	Private	12					1	4	1	3	1	2	3	3	
510	Private	16			2	10			1	3	1	2	1	1	
680	Private	13					1	4			1	2	7	7	
Sum	All	155	3	54	2	10	3	12	4	12	11	22	37	37	8
Pct		100%		35%		6%		8%		8%		14%		24%	5%
Cum		7	3	35%	5	41%	8	49%	12	57%	23	71%	60	95%	100%
Pred # Privates			51		86		137		206		394		1,029		

C. CATHOLIC SCHOOL SECTOR

ID	TYPE	TOTAL N	GT 5	N STU'S	5	N STU'S	4	N STU'S	3	N STU'S	2	N STU'S	1	N STU'S	MISS. DATA
10	Catho	31	1	16	1	5	2	8					2	2	
240	Catho	29	2	21			1	4			1	2	2	2	
360	Catho	17	1	10	1	5							2	2	
500	Catho	36	1	20					2	6	2	4	5	5	1
670	Catho	25	2	13					2	6	1	2	4	4	
Sum	All	138	7	80	2	10	3	12	4	12	4	8	15	15	1
Pct		100%		58%		7%		9%		9%		6%		11%	1%
Cum		5	7	58%	9	65%	12	74%	16	83%	20	88%	35	99%	100%
Pred # Catho's			112		144		192		256		320		560		

TABLE 6-1 (CON'T)

TRANSFERS OF SAMPLE STUDENTS TO HIGH SCHOOLS
COUNTS OF CLUSTERS OF SPECIFIED SIZES

D. FOLLOW-UP - ALL SECTORS

ID TYPE	TOTAL N	GT 5	N STU'S	5	N STU'S	4	N STU'S	3	N STU'S	2	N STU'S	1	N STU'S	MISS. DATA
Estimated 1st FU High Schools		1,069		1,240		1,487		1,746		2,230		4,957		
% of Students		73%		76%		80%		83%		87%		97%		
Pred # Publics		905		1,011		1,158		1,284		1,516		3,368		
Pred # Privates		51		86		137		206		394		1,029		
Pred # Catho's		112		144		192		256		320		560		

6.2.7.2 Establishing a Single Minimum Cluster and Estimating the Size of the First Follow-up Effort

How do these figures help one to predict the size of the necessary first follow-up effort involving a base year sample of 1,000 schools (800 public and 200 private)? The field test findings are suggestive, and it is possible to generalize and project based on them concerning the size of the first follow-up. But given a non-representative sample of just 50 schools in 10 counties, it is necessary to remain aware that the data are limited and carry no certainty with them. Use of an equation helps to determine the number of schools to which it would be necessary to go in the first follow-up, if a particular minimum cluster size is specified. If the cluster size selected is 5, for example, one would take the ratio of the number of tenth grade schools to the number of eighth grade schools, multiplied by 800 (the number of public schools in the base year sample, or 200 in the private school case) and get the predicted number of schools-- public or private--it would be necessary to go to in the first follow-up. Through use of the above equation, the efficiency of different cluster sizes can be estimated for the first follow-up.

If the cluster size for all schools is set at greater than five, it would be necessary to go to 1,069 high schools in order to capture only 73 percent of the students in the first follow-up of the total base year students. If the minimum cluster size is set at five, one would have to go to 1,240 different high schools to get 76 percent of the eighth graders two years later. If the minimum cluster size is set at four, it would be necessary to go to a total of 1,487 different high schools to follow-up on 80 percent of the students. If the minimum cluster size of three is set, one would have to go to 1,746 high schools and could capture 83 percent of all students. If the minimum cluster size is set at two, one would have to go to a total of 2,230 high schools and could get 87 percent of all students as tenth graders. Finally, if the minimum cluster size is set at one and a decision was made to follow-up on all individual, as well as all group, transitions to high school, it would be necessary to go to as many as 4,957 different high schools to capture 97 percent (or 100 percent, allowing for follow-up on students of the students with missing data on high school plans) of the students.

Setting a single minimum cluster size of anything greater than two would not allow for the capture of at least 85 percent overall of the sample in the tenth grade follow-up. If all students in clusters of two are followed up, then it would be necessary to go to two and a half tenth grade schools for each eighth grade school in the sample. It would be a large effort, requiring visits to 2,230 schools (1,516 public, 394 other private, and 320 Catholic schools) Setting the minimum cluster size at one and trying to follow each individual transfer in all sectors would be too time-consuming and costly, although it would yield the highest percent of students.

6.2.7.3 Setting Different Minimum Cluster Sizes for Different Sectors

Other private school students in the field test sample plan to transfer to various high schools as single individuals in 24 percent of all cases. To capture a higher percent of other private school students in a follow-up effort, it would be necessary to set a minimum cluster size of one. Although it is not possible to follow-up on students of all sectors as individuals, it might be possible to follow-up on the members of particular subgroups as individuals in order to maintain their adequate representation in the sample. As the student responses from the field test indicate, there will be much more dispersion of other private school students than of public students (with the exception of some large urban districts) or Catholic students.

In planning for the first follow-up, serious consideration should be given to the possible alternative of establishing different minimum cluster sizes for public and private schools-- or for public, Catholic, and other private schools. A decision could be made to follow-up on part of the public school student sample by setting a higher minimum cluster size, and to pursue all of the private school students by setting a minimum cluster size of one. Although Catholic students tend to disperse more in ways similar to the public school students, they are very important to the sample and their adequate representation in the follow-up is critical to future discussions comparing the effectiveness of public and private schools.

It could be decided to follow-up the public school students in clusters of two (capturing 89 percent), three (capturing 87 percent), or four (capturing the minimum desired 85 percent). Use of these different cluster sizes would require going to 3,368 or 1,516 or 1,284 public schools in the first follow-up. If, for example, it was decided to set a minimum cluster of three for public schools, 10 percent of the public school students would be left out of the follow-up effort because they will transfer singularly and in pairs to high school. One possibility (cost permitting) would be to randomly follow-up on half of the public school students moving singularly and in pairs, while keeping the minimum cluster size for public school students at three.

If it is very important to make an effort to capture at least 85 to 90 percent of the other private school students in the 1990 follow-up, it would probably be necessary to try to follow-up on all of them. If one set a minimum cluster size of two for Catholic schools, it would be possible to follow up on 88 percent of the sample. If there are 80 Catholic schools in the base year sample with a total of 2,080 students, there would be 229 students remaining who make transfers to high schools as individuals in clusters of one. That would not be too many to follow-up on as individuals. And allowance should probably be made for the fact that some students will be lost to the sample. In other words, a decision might still be made to follow-up on all Catholic school students, despite the fact that 88 percent of them could be captured by stipulating a minimum cluster size of two.

Whether or not to try to follow all of the Catholic school students is another important question that needs to be resolved.

6.2.8 Summary and Recommendations

Two topics have been addressed in this section. These are the question of the accuracy of student responses concerning where they expect to attend high school and the question of how to capture the greatest number of students through an economical effort in the first follow-up survey. The analyses of these questions are briefly summarized here.

The accuracy of student reports was assessed through comparison of student responses with both parent and principal responses. Because 63 percent of the students named the same school as their parent did and because the average amount of agreement between a school's students and its principal on the same issue was 79 percent (in a subsample of schools with parent surveys), it must be concluded that students' reports of plans are fairly accurate and reflect the kinds of high school transfers which will occur. Lower levels of response to the question on high school attendance plans and lower amounts of agreement between students and their parents or principals tend to be more prevalent in situations in which high scatter is expected. Field test results indicate that two areas in which great student dispersion is expected are the large cities, such as New York City, which have many magnet schools and the other private schools, which generally do not belong to a system of schools and, therefore, send students on to a large number of different high schools.

The second main issue examined in this section is that of pursuing optimal numbers of students in the first follow-up effort. This issue has two dimensions. First, it is necessary to decide how to follow the greatest number of students in the most economical kind of unit. Second, consideration must be directed to the question of how (or to what degree) one would want to follow those who do not fall into that pattern (overall, or distinguished by sector).

Minimum cluster sizes were used to organize ways to make decisions about the sampling and retention of students in the sample. The analysis shows that if various minimum cluster sizes were chosen to follow-up, different percents of students would be captured through visits to various numbers of schools. A decision must be made on the question of whether to set the same minimum cluster size to follow-up for all students, regardless of their school sector, or whether to set different minimum cluster sizes for the public and the private (or even the Catholic and the other private). Because of the importance of retaining private schools in the sample and because of the greater degree of dispersion of students in the other private schools, it may be desirable to try to follow up on all students individually, even if a larger minimum cluster size (for example, of 2,3, or 4) is set for the public schools.

Essentially, examination of the field-test results indicates that, given the suggested dispersion patterns of public, Catholic, and other private school eighth graders, setting a minimum cluster size greater than two would not permit follow-up of even 85 percent of the base year students. Using the two-person minimum cluster size would encompass approximately 89 percent of the field test public school students (with 72 schools involved) and 88 percent of the Catholic students (with 20 schools involved), but only 71 percent of the other private school students (with 23 schools involved). Were field-test other private students alternatively pursued in clusters of one, 95 percent could be followed up (or 100 percent if other locator information was used to track those lacking responses to the question on high school plans). However, 60 schools would be involved. This illustrates the nature of the decision that must be made.

There needs to be the right balance between statistical reasons and cost reasons in the decision-making process concerning follow-up strategies for sampling and retention of students in the sample. The power and efficiency of the national estimates must be weighed against the power allocated to subgroup estimates. Decisions on what size clusters to follow up must take into consideration national population estimates, policy-relevant subgroup estimates (such as those relevant to the private school sector), and cost and organization issues.

Finally, it should be remembered that this analysis has focused on ways to maximize the number of students one could capture in a classroom setting. Instead of pursuing all students by going to their schools, there are two alternative modes of follow-up which could be used in cases where very small numbers of students (or even individuals) moved on to different high schools. One would be to pursue those students who move on to high school as individuals by going through their parents and not the schools. Another possibility is to have those students in urban areas who have transferred individually or in very small clusters come to a common large school or other testing site located nearby for the follow-up interviews and tests. These alternatives should be considered as ways to cut down on the cost and increase the efficiency of the effort to follow-up students who transfer to high school as individuals.

CHAPTER 7: SUMMARY AND CONCLUSIONS

7.0 Evaluation of the Field Test Design

In this chapter, we draw conclusions and summarize principal findings concerning the adequacy of the field test design. This discussion centers on four features of that design:

1. the **sample plan**

2. **pre-survey activities** (securing cooperation, tracking permissions, orientation day),

3. the **design for data collection**, and

4. the **data collection instruments.**

Since the bulk of questionnaire and test data for students and parents will be processed in a different manner (optical scanning) in the base year, data processing does not figure as a separate point in this discussion of the field test.

7.1 Adequacy of the Sample Design

The base year sample for NELS:88 will be a two-stage clustered and stratified national probability sample of eighth graders. As will be the case in the base year, field test schools were selected as the first-stage units and students within schools as the second stage units. School selection automatically implicated one class of respondent, the school principal. Student selection provided the basis for identifying two additional classes of respondents--one of the child's parents, and two of the child's teachers. Selected students included not only a core sample, but a supplementary oversample of Asian-Pacific and Hispanic students. As reported in Chapter 1, the field test was limited to two counties in each of five purposively-selected states. However, within those counties, schools were selected with probability proportional to eighth grade enrollment, with an oversample of private institutions.

The two-stage approach, private sector oversample, and use of Probability Proportional to Size (PPS) sampling were employed in High School and Beyond, and proved unproblematic procedures for the NELS:88 field test. However, several aspects of the sampling process--primarily at the student and teacher levels--will benefit from further attention. These are, in particular: (1) identification and selection of OBEMLA supplementary students; (2) student sample updating; (3) selection of teachers. Before addressing these three major concerns, however, it may be worth anticipating the possibility of encountering schools on a 12-month plan in the 1988 sample.

In the field test, student samples were drawn in the autumn and eligibility for the spring survey was initially defined in terms of the student's current (autumn) membership in the eighth grade. The increasing use of year-round schooling, especially in California, creates a situation where some eighth grade students attend any two of three terms during a 12-month school year. If such cases are encountered in the base year sample, it will be desirable to define eligibility at such schools in terms of spring enrollment.

Identification and Selection of OBEMLA Supplement Students

Analysis of field test data showed that there were both student and school errors in identification of Asian-Pacific and Hispanic students. Selection into the sample was based on the school's annotation of the eighth grade roster. Examination of open-ended responses and comparison of student and parent reports pointed to considerable student error in use of the "Other" Asian and Hispanic categories. (We have proposed revisions in the language items that should minimize this kind of error in the base year.) However, student reports of membership in the specifically named subgroups (for example, Puerto Rican, Cuban, Japanese, Korean) were generally accurate. At the same time, schools substantially undercounted (in the area of 25 percent) these subgroups. While some amount of undercounting can be tolerated, a major goal of the base year should be to obtain more accurate ethnicity annotations from the school. We recommend as the most efficient means to this end preidentification of schools likely to experience this difficulty (for example, large schools with poor or no ethnic records) and special efforts to involve teachers in the review of annotated rosters.

Of course, the sampling fractions for Asians and Hispanics that were employed in the field test--somewhat arbitrary ratios designed simply to select large enough numbers of both groups to underwrite field test analyses--must be reworked to reflect national eighth grade probabilities for Asians and Hispanics.

Sample Updating: Students and Teachers

An additional area of sampling concern is the problem of accommodating transfers. In the field test, a sample was drawn, pre-survey activities were conducted with the schools, and the sample was updated a week to ten days prior to Survey Day. Transfer students were selected into the eighth grade sample employing the same ratios used for selection of the original sample in the particular school. However, owing apparently to occasional inaccuracies in original lists and (often--especially in schools with computerized record-keeping) lack of a clear record of who had transferred in since the initial sampling date, the pool of transfer-in students was implausibly small relative to listed transfer-outs at the time of the sample update.

A further updating difficulty concerns teacher selection. Changes in the student sample may affect the teacher sample. A teacher who was linked to a particular student may no longer be eligible after the student has transferred out, or a transfer-in may draw an additional teacher into the sample. Given the complexities of the present teacher selection procedure (if retained) and the limitations of time, it will prove difficult to adjust the teacher sample to reflect the updated student sample. While no effort was made to update the field test teacher sample, an updated teacher sample will be desirable in the base year.

There are two possible approaches to the problems experienced in sample updating. One is to draw the sample on-site at a much later date (say fifteen to twenty days before Survey Day). This would have the additional advantage that the teacher matrix/student schedules could be collected at the same time. However, an additional school visit would be costly and a later sampling date would drastically shorten the time available for permission follow-up. In explicit consent schools in particular, insufficient time would remain to track outstanding permission forms. Nor would adequate time be available to return sample materials to Chicago for processing and for generation of needed reports, labels and logs.

A second and probably preferable solution to the updating difficulty is to provide school coordinators with a log for recording transfer students from the date the original roster was generated. The teacher resampling problem could be solved by eliminating the teacher matrix and surveying all relevant eighth grade teachers in each school's two selected subject matters.

Sampling Teachers: Class Schedule Matrices

Indeed, one of the most important issues arising out of the field testing of the teacher survey is whether the class schedule matrix for teacher sampling could be dropped. There are several reasons for believing that a superior alternative would be to sample all eighth grade teachers in the two subject areas preselected for each school, and obtain data on the student-teacher-classroom link from the teacher questionnaire.

The field test demonstrated that the need to construct a class schedule matrix to link NELS:88 students and teachers was a burdensome activity for many schools. It not infrequently took School Coordinators up to two hours to construct the matrices. The information contained within them was frequently wrong and was often out of date by the time the survey took place. While some Coordinators were extremely cooperative and efficient, others required repeated urgent promptings, a task not without its discomforts for both school and contractor staff. Given that the matrices could not be completed until after the student sample was selected, and that considerable lead time was then required if teacher questionnaires were to reach schools well ahead of Survey Day and be collected by the NORC Survey Team, the inevitable result was that despite all efforts teacher questionnaires often did not reach the school until Survey Day.

When we debriefed School Coordinators after the field test, it was determined that if we had taken all eighth grade teachers in the school instead of the selected sample, we would have added on average one teacher per school. Given that the field test method selected on average only 5.9 teachers per school, these additional teachers would provide a sample still below the numbers originally anticipated.

A sample of all grade eight teachers in the two subject matters would offer several advantages in addition to speed and reduction in school burden. If appropriately worded items appear on the teacher questionnaire so that the linkage between teachers and NELS:88 students can be ascertained, this method would more readily accommodate changes over time, including changes in the student sample and classroom schedule. This procedure would accommodate teacher changes as well as student--for example, teachers who transfer in. While a few teachers could be selected in who might not teach any member of the student sample, these teachers could complete all questionnaire items except the student ratings. These additional teachers however would contribute to an overall teacher probability sample of the four subject areas. Their responses would also add precision to the aggregate school-level composite variables.

Of these many benefits to dropping the class schedule matrix, perhaps the most important is the contribution this would make to lessening the burden of the school, thus facilitating efforts to obtain initial school cooperation, and to maintain a cooperative relationship with school personnel throughout the survey.

However, a final decision in the matter of the teacher matrix should also weigh possible disadvantages to a change of procedure. One such disadvantage is that while reducing the burden to the school coordinator, the burden to the individual teacher of supplying additional information might be somewhat increased. Also, allowing teachers to be the sole identifier of the links between student, classes, and teachers is more "subjective" in that it removes some of the built-in checks of teacher-provided data. (Teacher-provided linkages are subject to non-sampling error in that teacher respondents may fail to respond or respond incorrectly to student-teacher-class links resulting in "unclaimed" sampled students. However, school class schedule records may also be in error, and School Coordinator error in preparing matrices is also possible.) Finally, the proposed revision of procedures would not have undergone the benefit of full-scale field-testing, though base year conditions might be simulated on a reduced scale.

Principal and Parent Selection

There were no apparent difficulties in sampling of school principals. However, there were noteworthy complexities in the approach to parent selection. The parent letter and the instructions in the questionnaire asked that the instrument be completed "by the parent or guardian who is most familiar with the student's current school situation and educational plans." Although in most cases (approximately three-quarters) the mother completed the parent instrument, the fact that a substantial minority of non-mothers also answered the questionnaire argues for continuation of the present approach to parent selection, rather than predesignation of the mother as parent respondent.

7.2 Pre-Survey Activities

7.2.1 Securing Cooperation

Securing cooperation was in many respects the most arduous field test activity, and is sure to be the major challenge of the base year. While many districts and schools cooperated enthusiastically, others entered the sample only after a long process of persuasion. Still others could not be brought into the sample at all.

In one respect contacting in the base year may prove easier than in the field test. Many field test schools and districts expressed the view that this was "only a pretest" and that a trial of procedures could easily take place elsewhere. They therefore did not feel the degree of obligation to the study that they might in the base year, at which time NELS:88 would need their cooperation to preserve its national probabilities, and the collected data would become part of a long-term research resource. The several state and city augmentations will also be factors that may give the base year study more persuasive leverage in certain localities.

On the other hand, the base year survey--unlike the field test, which was not required to support unbiased population estimates--will not afford the luxury of ready substitutions. We will badly need to secure the cooperation of virtually every sampled school.

In addition, overlap with the National Assessment of Educational Progress and the Schools and Staffing study in the large districts--often precisely those districts that are already overburdened by testing--may create an unfavorable climate in certain areas. It is to be hoped that the coordination efforts to prevent overlap in the initial sample of the three studies at the school level will ensure a measure of good will in many districts.

While a range of persuasive arguments was applied in the field test, often with good effect, one particular incentive that was often mentioned was the return of data to schools, districts, or even to individuals. Though the wish that some form of data be returned was most often voiced by district and school officials, some parents expressed strong interest in individual level data, or wanted to know whether information would at least be given to the school.

Although contractor resources are currently not budgeted for generation and return of survey data to participants, it should be considered whether it would not be desirable to find ways to make such data return feasible. National findings that will be available some years hence are of some interest to principals and superintendents but seldom have a decisive persuasive effect on survey participation. Schools repeatedly ask how their students and staff will benefit from taking part and point to the valuable classroom time they must sacrifice in order to participate. If the study offers nothing in return at the school level--nothing that can directly assist decision-makers in the limited educational community of the district or school--such an intrusion on student classroom time may often seem unwarranted. It is therefore desirable to be able to offer schools and districts (and perhaps individuals) summary local and national test scores (with reading and mathematics scores perhaps expressed in terms compatible with NAEP). While cost considerations constrain the number of sources that can be merged and levels at which data can be aggregated, the several options in this area should be explored.

However, many districts have their own testing programs, and often there are state assessments or competency tests at eighth grade level as well. To overburdened districts that feel they already receive a surfeit of test data, findings from the NELS:88 questionnaires may be of particular interest. The national comparison point that the study can offer to schools and districts should be especially attractive. Though students often are tested, seldom are carefully constructed background, behavioral, attitudinal and aspirational questions put to eighth graders. Less often still are data from a student-linked sample of parents and teachers available to further illuminate student results, or depict relationships between parents and the school from both a teacher and parent perspective. Questionnaire data as well as test data, then, could be made available in summary form, and may provide an additional strong incentive for participation.

A final school contacting consideration is the relatively greater difficulty experienced in securing cooperation from schools in the Other Private sector--particularly from small Christian academies. These schools are seldom swayed by appeals to the research interests of the federal government, but may relish the opportunity to compare their own survey results to a representative national sample.

7.2.2 Orientation Day

Judicious consideration must be given to assessing the comparative costs and benefits of an orientation day. Overall, the Orientation Day experiment showed that this introductory session had a marginally positive effect on participation. Since participation at eighth grade level was extraordinarily high--compared to High School and Beyond tenth and twelfth graders or the tenth and twelfth grade participants in the NELS:88 field test--there was little scope for a more-than-marginal boost to participation. If measured by the narrow criterion of number of potential Makeup Days eliminated by the higher initial participation rate, the orientation sessions cost somewhat more than they saved. However, a broader evaluative criterion may be appropriate.

If the overall effect of orientation sessions was only marginally positive, nevertheless, the effect in certain cases was more dramatic. Specifically, Orientation Day appeared to have a significant impact on student participation in difficult schools in the Other Private sector. In addition, it was sometimes of special value in facilitating consent in schools requiring explicit parental permission.

Also, Orientation Days appeared to fulfill certain latent functions quite apart from their manifest function of boosting response. Team Leaders were able to establish personal relationships with school personnel. They were able to ascertain whether survey materials had arrived and were properly stored, whether the designated survey room was adequate, and were able to make reliable judgments about the school milieu--the school's degree of organization, general climate, and the characteristics of its teachers and student body. This additional information was probably of greatest value in schools most vulnerable to problems that could have adversely affected data quality and costs.

Additional in-school activities that would otherwise take place over the telephone--activities such as the sample update--might be folded into Orientation Day. If this were done, orientation session costs relative to alternatives could be minimized at the same time that benefits of a pre-survey school visit could be increased.

All in all, the field test suggests that Orientation Day may be of significant value in certain types of schools. Serious consideration should be given to holding the Orientation Day in all schools--but at the very least, orientation sessions should be scheduled for schools that are likely to be disorganized and difficult to work in, schools that require the method of explicit parental consent, and in many of the schools in the Other Private sector.

7.2.3 Permission Tracking and Follow-up

The evidence of the field test suggests that high student participation can be obtained under conditions of either implied or explicit parental consent, but that the cost, in monetary and other resources, of follow-up of explicit consent cases can be prohibitively high. In base year contacting activities therefore, the greatest possible emphasis will be placed on the adequacy of protections offered students, parents, principals and districts by implied consent measures; and on the disadvantages to school, contractor, and the study's principal goals, of explicit consent procedures.

A particularly troublesome case of explicit consent was presented by New York City—a population unit of the first importance, that will also be heavily oversampled in 1988 through the New York State NELS:88 augmentation. There, the standard means of following up on outstanding explicit parental consent forms--telephone or in-person contact--was expressly forbidden. The New York City Board of Education should be re-approached, with the aim of obtaining a relaxation of either the explicit consent requirement or the restrictions on follow-up--or both. In renegotiating the conditions under which NELS:88 will operate in the city's public schools, special attention must also be given to the legitimate consensual concerns of the Board of Education. In a multilingual city with a high percentage of its population born outside the United States, it cannot be assumed that all consent forms which have not been returned have been read and understood by parents and represent cases of informed tacit agreement that their child participate. Contact letters and permission forms may have to be translated into Spanish and other languages. The fact that we will oversample Hispanics and Asians--and will have a large number of New York State Supplement schools in New York City in addition to the core sample--compounds the need for special measures that will ensure communication in a setting where language barriers may be present. The same linguistic difficulties will be experienced, if to a somewhat lesser degree, in other major metropolitan areas, including Los Angeles and Chicago (which presently plans a 20-school city augmentation).

7.3 Data Collection Design

School Survey: Student, Principal, Teacher

School data collection generally moved quite smoothly and followed the model established by High School and Beyond. The School Coordinator worked with the NORC Survey Team. The student questionnaire was administered, then the cognitive tests. While the cognitive tests were being completed, survey administrators edited critical items in the student questionnaire. Depending on the date of receipt of the teacher matrix, it was sometimes possible to collect teacher and school questionnaires on Survey Day. When these questionnaires could not be picked up on Survey Day, they were instead distributed at that time. Distribution in advance of Survey Day is the preferred method, though a high response rate was obtained by both means.

A few student questionnaire critical items were not readily retrievable. Parental occupation, where multiple responses often could not be resolved, is the paramount example of this. Clerical Assistants proved good editors but may benefit from additional training on difficult items. Elimination of the occupation categories from the student questionnaire would also help the editing process. (The close-coded occupation question absorbed an inordinate amount of the editor's time, and contributed disproportionately to the complexity of the editing task.)

Some schools were reluctant to give up more than one class period for testing and surveying of students. However, schools generally were willing to give approximately one half school day--usually from the morning starting time until the mid-day lunch break--for the survey. (Afternoon sessions of equivalent length were possible for a few schools.) This amount of time was theoretically more than sufficient even for administration of field test instruments, which are ordinarily slightly longer than base year versions. In practice, however, there were some cases where it proved difficult to complete all survey activities within the scheduled time. Time problems did not reflect the length of the survey instruments, then--but rather, the difference between projected and actual starting times. In schools that were particularly disorganized and where it was difficult to assemble students and begin on schedule, there was invariably a time crunch. We may see here another reason for supposing that the informational and motivating contacts with students and school personnel established in an orientation session can be used to good effect in forestalling problems that might otherwise occur on Survey Day. In the base year, with a number of two-page state or city supplemental instruments adding to the total length of the survey, it will be especially important to ensure conditions whereby all sessions can begin on time.

Parent Survey

The parent study reflected a mixed mode of data collection. Questionnaires were distributed within classrooms, or were sent directly to the home in the mail. Return of the survey was in the first instance by mail, with telephone prompting, followed by telephone and in-person interviewing of nonrespondents. The overall parent response rate suggests the positive orientation of parents toward the survey's content, and level of burden; and suggests that the data collection methods were effective. However, results of the experiment in means of distributing the parent questionnaire have important implications for the data collection plan for the base year.

Results of the field test experiment in use of the eighth grade student versus the mail as delivery mechanisms for the parent questionnaire suggest that the student take-home method is likely to prove more effective than mail delivery. Although students are not wholly reliable vehicles for questionnaire delivery, and considerable remailing is required under this method, they are reliable enough to ensure savings in cost and an increase in effectiveness, as measured by parental response rates. There is some indication that return of the questionnaire to the school may be somewhat more effective than direct return to NORC.

7.4 Adequacy of Data Collection Instruments

7.4.1 Student Questionnaire

Questionnaire Data Analyses

Although many of the items used in the NELS:88 student questionnaire appeared on the HS&B and NLS-72 instruments, often these questions had to be modified for eighth graders, and data on their use with a younger population had not hitherto been obtained. In addition, a number of new items appear on the student questionnaire.

We therefore closely evaluated the questionnaire data to identify nonresponse problems, tried to uncover the causes of nonresponse for particular items, and suggested appropriate item, instruction, format, or procedural changes. We also attempted to assess data quality or validity whenever this was possible, employing inter-item consistency checks and comparisons of data from different classes of respondents (students and their parents) to this end.

A further question was how well eighth graders would perform on skip patterns--that is, conditional questions that require no answer if a preceding question routed them out. For this reason, we assessed logical consistency between questions to determine whether there were problems in questionnaire clarity or design. Examination of item response also afforded an opportunity to evaluate the effectiveness of in-school editing and retrieval procedures. Finally, we assessed questionnaire length by examining the comparative quality of responses to the final data elements.

These analyses both confirmed the effectiveness of the general approach to data collection and pointed to the desirability of numerous specific modifications in item wording or questionnaire format. Of those findings with implications for possible modifications in the base year instruments, perhaps the most important was that parents are superior reporters of certain kinds of information that is of particular interest for the base year survey.

A guiding intuition for development of the four questionnaires was that, in recognition of the limits on the amount of data that could be collected from eighth grade students, items in the student questionnaire should be limited to those for which the individual student is the only or best informant. In general, such items focus on individual students' experiences, perceptions, beliefs, expectations and attitudes. Data on students' home and learning environments, we felt, should be collected primarily from parents and school administrators and teachers. Of course, some limited redundancy with contents of other questionnaires can be desirable, and provides a means to assess, for example, perceptual differences. In the field test overlap was methodologically desirable as a means to gauge item validities and to permit the "best respondent" for certain items to be identified.

Important areas of parent-student (and in one case parent-student-school) questionnaire overlap in the field test included SES data (parental occupation and education), early educational experience, receipt of special services, and likely high school of attendance in the tenth grade. In terms of both levels of response and consistency or quality of response, parents proved better able to give information on occupation, far better able to use occupation categories to classify parental occupation, and better able to report on parental education--all important constituents of an SES index. Parents also proved to be superior sources of information on the child's early (pre-school to kindergarten) education, and better reporters on the child's present receipt of special services. Students however had less nonresponse than parents on items relating to probable school of attendance in tenth grade, and their reports receive a high degree of confirmation from principal reports in the school questionnaire.

These results suggest that certain SES questions--but especially the closed occupation categories--should be dropped from the student questionnaire. SES data should be sought in the first instance from the parent, with some of the simpler SES measures (item lists, parent education using quite broad response categories, and perhaps an open-ended father's occupation question) also present on the student instrument, to provide some SES information for instances in which the parent does not participate. Questions about preschool educational experience should be asked primarily of the parent, and special education services information sought from school and parent.

English as the Language of Questionnaire Administration

The field test student questionnaire was produced and administered only in English, although the plan of work for the base year leaves open the possibility of a Spanish version. District personnel indicated that their minority-language eighth graders would generally be able to complete the test and questionnaire in English. To the extent that some were not, however, those same students were excludable from the survey since one of the ineligibility codes specified "does not have English as a mother-tongue and insufficient command of English precludes filling out questionnaires and tests". Under these circumstances, administrators thought there would be little or no demand for a Spanish-language student questionnaire, though they thought a Spanish version of the parent questionnaire might prove useful. (Certainly, for the base year, the use of certain bilingual contacting materials is advisable, as well as having on hand a number of bilingual convertors to talk to parents.) In High School and Beyond in 1980, only 43 of 30,030 sophomores elected to use the Spanish-language questionnaire.

The field test supplies no reason to suppose the situation would prove dramatically otherwise for 1988 eighth graders. When we analyzed high nonresponse items to see if response correlated with certain group characteristics, one such classification variable was mother tongue.

Statistically significant differences in response were observed on only two of the eleven questions on the basis of having a mother-tongue other than English—a reminder that for selected items the unique aspects of the minority language student's experience and sociolinguistic situation may require special sensitivity--but evidence also that in general minority language students could deal with the questionnaire.

Nonetheless, one might wonder what effect exclusion of those with extremely low English proficiency might have on the representativeness of the sample in the several locales where language minorities are most concentrated. This question might be asked again in the context of the policy interests of the OBEMLA Hispanic supplement. If one were to exclude from the sample only students who could respond to the questionnaire in neither English or Spanish, the need for a Spanish version of the instrument would be substantially greater.

If a Spanish-language student questionnaire were produced, this fact might have implications for the parent questionnaire. In the field test we seldom found parents who failed to complete the questionnaire because of a language problem--usually, parents simply had someone who knew more English (often the student or one of his siblings) help them. This would less frequently be an option were the student sample extended to non-English speakers. (It is also unclear whether questionnaires filled out with the assistance of bilingual family members offer data of a quality equivalent to questionnaires filled out in the parent's mother tongue.)

Consultations with CES, OBEMLA, school districts with large minority language populations, the National Advisory Panel, and the study's Hispanic and Asian-Pacific supplement consultants, should clarify the general issue of the possible desirability of non-English language contact materials and instruments.

7.4.2 Cognitive Test Battery

The NELS:88 cognitive tests must fulfill several purposes. They must be sensitive to achievement gains that will yield reasonably reliable estimates in each of the four content areas (mathematics, science, English/reading, social studies). Within the base year time constraints (approximately 85 minutes testing time) the cognitive battery must minimize both floor and ceiling effects. The tests must be curriculum-sensitive--that is, the pool of achievement items must be tied to curriculum offerings in grades 8-12. An additional purpose is to develop IRT scales for mathematics and possibly reading that will permit cross-sectional comparison of the High School and Beyond sample with the NELS:88 follow-up participants.

Four relatively short tests have been constructed from the larger field test item pool, indicating a preliminary choice of 20 reading, 40 mathematics, 30 social studies, and 25 science items. Preliminary results suggest that for mathematics and reading, two test forms should be provided--one for eighth and tenth graders, and another for twelfth graders. A single form can be used for the social studies test; further analyses will determine whether a single form will suffice for the science test.

Preliminary science, mathematics and reading test forms exhibit reliabilities that match or exceed those of HS&B; however, the social studies tests, while reliable, are too different from the HS&B social studies tests to compare. Additional analyses are required to supplement these preliminary results and provide a basis for final recommendations.

7.4.3 Teacher and School Questionnaires

While overall item nonresponse on both teacher and school questionnaires was quite low, analysis pointed to a number of specific item or format modifications that should reduce nonresponse further in the base year instruments.

The high individual and item response for these instruments is all the more surprising given the finding that they are of a length substantially above the targeted respondent burden. It will therefore be necessary to identify items that might be eliminated so that the instruments can be shortened--or if this is not possible without harm to the research goals of the study, to provide respondents with more accurate expectations as to questionnaire length, and to anticipate additional retrieval activities in the base year.

7.4.4 Parent Questionnaire

In general, parents appeared to welcome the opportunity to complete this questionnaire. Although the field test version was somewhat longer than intended for the base year, because of the salience and interest of its content for this respondent population, the instrument was apparently perceived as being a quite reasonable length.

A criterion of a minimum 95 percent response for critical items and a minimum 92 percent response for noncritical items was used to identify problematic items. Overall, item nonresponse was low, for both critical and noncritical items. There were however some high nonresponse items, owing to the nature of the question (for example, income) or to problems in item wording and format, which will be corrected for the base year version. Cross-validational analyses showed that parents were superior reporters of parental education and occupation data, as well as special program participation; parents were less able than eighth graders, however, to name the likely school of attendance in the tenth grade.

These results confirm the prudence of sampling all parents of NELS:88 eighth graders. A slightly shortened, revised version of the present parent questionnaire should serve the purposes of the base year well.

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FIELD TEST REPORT

NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988 (NELS:88)

APPENDIX

LIST OF APPENDICES

Appendix I: FIELD TEST RESEARCH INSTRUMENTS

- Item 1: Eighth Grade Locator Booklet
- Item 2: Eighth Grade Questionnaire
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- Item 4: Twelfth Grade Questionnaire
- Item 5: Parent Questionnaire
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- Item 7: School Questionnaire
- Item 8: New York Supplement
- Item 9: Summary of Cognitive Test Battery

* This booklet contains Appendix I only.

Item 1

Eighth Grade Locator Booklet

Form Approved
O.M.B. No. 1850-0593
App. Exp.: 6/30/1987

EIGHTH GRADE LOCATOR BOOKLET

NELS:88
NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988
FIELD TEST

Prepared for: U.S. Department of Education
Center for Education Statistics

By: NORC, A Social Science Research Center
University of Chicago

BEGIN DECK 01
01-06/ (ID)

As a matter of policy, the Center for Statistics is concerned with protecting the privacy of individuals who participate in voluntary surveys. We want to let you know that:

1. Section 406 of the General Education Provisions Act (20-USC 1221e-1) allows us to ask you the questions in this questionnaire.
2. You may skip any questions you do not wish to answer.
3. We are asking you these questions in order to gather information about what happens to students as they move out of high school and make decisions about postsecondary education and work.
4. Your responses will be merged with those of other students, and the answers you give will never be identified as yours.

GENERAL INSTRUCTIONS

PLEASE READ EACH QUESTION CAREFULLY

It is important that you follow the directions for responding to each kind of question. These are:

(CIRCLE ONE)

What is the color of your eyes?

(CIRCLE ONE)

Brown 1
Blue 2
Green ....[✓ 3]
Another Color 4

If the color of your eyes is green, you would circle the three as shown.

(CIRCLE ALL THAT APPLY)

Last week, did you do any of the following?

(CIRCLE ALL THAT APPLY)

a. See a play 1
b. Go to a movie ....[✓ 2]
c. Attend a sporting event ....[✓ 3]

If you went to a movie and attended a sporting event last week, you would circle two items as shown.

(CIRCLE ONE ON EACH LINE)

Do you plan to do any of the following next week?

(CIRCLE ONE ON EACH LINE)

	Yes	Not Sure	No
a. Visit a relative	1	2	[✓ 3]
b. Go to a museum	1	[✓ 2]	3
c. Study at a friend's house	[✓ 1]	2	3

If you plan to study at a friend's house, do not plan to visit a relative, and are not sure about going to a museum next week, you would circle one on each line as shown.

This questionnaire is not a test. We hope you will answer every question, but you may skip any question you do not wish to answer.

PART-1 YOUR BACKGROUND

---

1. Please print in your name, address, and telephone number.
*

NAME:

______ Last 07-26/ ______ First 27-38/ ______ Middle 39-48/

ADDRESS: ______ Number ______ Street 49-68/

BEGIN DECK 02

ADDRESS CONTINUED: ______ ______ Apartment Number 07-26/

______ City 27-46/ ______ State 47-61/ ______ Zip Code 62-66/

(If you don't have a telephone, check this box: ☐) 67/

TELEPHONE: ______ Area Code 68-70/ ______ Telephone Number 71-77/

---

2. Please print in the name of your mother or female guardian.
*

BEGIN DECK 03

MOTHER OR FEMALE GUARDIAN'S NAME:

______ Last 07-26/ ______ First 27-38/ ______ Middle 39-48/

(If you have no living mother or female guardian,
check this box: ☐ and **SKIP TO** Question 4, next page)

3. Please print in your mother or female guardian's address and telephone
* number.

Same as mine .... [ ] --> **GO TO** Question 4 50/

If the address and telephone number are different, please fill in the space below.

ADDRESS: ____
Number Street 51-70/

ADDRESS CONTINUED: ______________________ ______________ BEGIN DECK 04
Apartment Number 07-26/

______________ City 27-46/

______________ State 47-61/

______________ Zip Code 62-66/

(If no telephone, check this box: [ ]) 67/

TELEPHONE: ______________ Area Code 68-70/ ______________ Telephone Number 71-77/

BEGIN DECK 05

4. Please print in the name of your father or male guardian.
*

FATHER OR MALE GUARDIAN'S NAME

______________ Last 07-26/

______________ First 27-38/

______________ Middle 39-48/

(If you have no living father or male guardian,
check this box: [ ] and **SKIP TO** Question 6, next page) 49/

---

5. What is your father or male guardian's address and telephone number?

Same as Mine ...... [ ] --> **GO TO** Question 6 50/

If the address and telephone number are different, please fill in the space below.

ADDRESS: ____
Number Street 51-70/

BEGIN DECK 06

ADDRESS CONTINUED: ______________________________ ______________
Apartment Number 07-26/

______________ City 27-46/ ______________ State 47-61/ ______________ Zip Code 62-66/

(If no telephone, check this box: [ ]) 67/

TELEPHONE: ______________ Area Code 68-70/ ______________ Telephone Number 71-77/

BEGIN DECK 07

6. Which of the following people live in the same household with you?

(CIRCLE ALL THAT APPLY)

a. Father 1 07/

b. Other male guardian (stepfather or foster father) 1 08/

c. Mother 1 09/

d. Other female guardian (stepmother or foster mother) 1 10/

e. Brother(s) and/or sister(s) (including step- or half-) 1 11/

f. Grandparent(s) 1 12/

g. Other relative(s) (children or adults) 1 13/

h. Non-relative(s) (children or adults) 1 14/

The information in the next question will help us to get in touch with you in the future. This information will be kept in strict confidence and will only be used for survey purposes.

7. Please write in the name, address and telephone number of your family's
* closest relative or friend who does not live with you.

NAME:

Last 15-34/ First 35-46/ Middle 47-56/

ADDRESS: Number Street 57-76/ **BEGIN DECK 08**

ADDRESS CONTINUED: Apartment Number 07-26/

City 27-46/ State 47-61/ Zip Code 62-66/

TELEPHONE (If known): Area Code 67-69/ Telephone Number 70-76/

Is this person a relative or a friend? **(CIRCLE ONE)**

Relative ..... 1 Friend 2 77/

8. Do you have a nickname or another name which your friends, neighbors, or
* family call you?

BEGIN
DECK 09

(CIRCLE ONE)

Yes .... 1 --> **GO TO** A
No .... 2 --> **GO TO** Question 9 07/

A. If you answered yes, what is your nickname or other name? Please print
* below.

NICKNAME:____
08-27/

9. When were you born?
*

|__|__| |__|__| |__|__|
MONTH DAY YEAR
28-29/ 30-31/ 32-33/

10. What is your sex?
*

(CIRCLE ONE)

Male 1 34/

Female 2

11. What is the name of the high school that you expect to be attending in
* tenth grade?

Name____
(PLEASE PRINT FULL NAME OF SCHOOL) 35-64/

BEGIN
DECK 1

City______________________ State______________________
07-26/ 27-41/

12. Is it a public school, a private religious school, or a private
non-religious school?

(CIRCLE ONE)

Public 1 42/

Private religious 2

Private non-religious 3

Don't know 8

13. What kind of school is it:
*

(CIRCLE ONE)

General or comprehensive high school
(general program or all sorts of programs) 1 43/

College preparatory high school 2

Trade, technical or vocational high school 3

Other: **(WRITE IN)**____________________ 4

I don't know 8

14. Is there another high school that you may go to instead?

(CIRCLE ONE)

No .... 1 --> **SKIP TO** Question 16, next page 44/

Yes .... 2 - If yes, what is the name of this school?

Name____
(PLEASE PRINT FULL NAME OF SCHOOL) 45-74/

City ____________________ 07-26/ State________________ 27-41/ BEGIN DECK 11

15. Is this a public school, a private religious school, or a private non-religious school?

(CIRCLE ONE)

Public 1 42/

Private religious 2

Private non-religious 3

Don't know 8

The following questions are about the language or languages spoken by you and your family.

16. Before you started going to school, did you speak any language other than English?

(CIRCLE ONE)

Yes .... 1 --> **GO TO** Question 17 43/

No .... 2 --> **SKIP TO** Page 9, Question 19

17. What was the first language you spoke when you were a child?

(CIRCLE ONE)

English 01 44-45/

Spanish 02

Italian 03

Chinese 04

French 05

German 06

Japanese 07

Korean 08

Portuguese 09

Any Filipino language 10

Other **(WRITE IN BELOW)** ... 11

____

18. What OTHER language did you speak before you started going to school?

(CIRCLE ONE)

I spoke no other language 00 46-47/

I also spoke:

English 01

Spanish 02

Italian 03

Chinese 04

French 05

German 06

Japanese 07

Korean 08

Portuguese 09

Any Filipino language 10

Other (WRITE IN BELOW) ... 11

____

19. What language do you USUALLY speak NOW?

(CIRCLE ONE)

English	01	48-49/
Spanish	02	
Italian	03	
Chinese	04	
French	05	
German	06	
Japanese	07	
Korean	08	
Portuguese	09	
Any Filipino language	10	
Other **(WRITE IN BELOW)**	11	

____

20. Is any language other than English spoken in your home?
*

(CIRCLE ONE)

Yes	1	--> **GO TO** Question 21	50/
No	2	--> Please **SKIP TO** Page 1 of the Main Questionnaire	

21. What language do the people in your home USUALLY speak?
*

(CIRCLE ONE)

English	01	51-52/
Spanish	02	
Italian	03	
Chinese	04	
French	05	
German	06	
Japanese	07	
Korean	08	
Portuguese	09	
Any Filipino language	10	
Other **(WRITE IN BELOW)**	11	

____

22. What OTHER language is spoken in your home?

(CIRCLE ONE)

No other language is spoken 00

The other language spoken is:

53-54/

English 01

Spanish 02

Italian 03

Chinese 04

French 05

German 06

Japanese 07

Korean 08

Portuguese 09

Any Filipino language 10

Other **(WRITE IN BELOW)** ... 11

____

23. **What language, other than English,** do you currently use most often?

(CIRCLE ONE)

Spanish	02	55-56/
Italian	03	57-64/R
Chinese	04	
French	05	
German	06	
Japanese	07	
Korean	08	
Portuguese	09	
Any Filipino language	10	
Other (WRITE IN BELOW)	11	

____

QUESTIONS 24 AND 25 BELOW ARE ABOUT THE USE OF THE LANGUAGE YOU ANSWERED IN QUESTION 23.

24. **With regard to THAT LANGUAGE how well do you do the following?**

(CIRCLE ONE ON EACH LINE)

How well do you ...	Very Well	Pretty Well	Well	Not Very Well	Not At All	
a. Understand that language when people speak it	1	2	3	4	5	65/
b. Speak that language	1	2	3	4	5	66/
c. Read that language	1	2	3	4	5	67/
d. Write that language	1	2	3	4	5	68/

25. How often is THAT LANGUAGE spoken in each situation listed below?

(IF YOU DO NOT SEE THAT PERSON OFTEN, PLEASE CIRCLE "Does not apply")

(CIRCLE ONE ON EACH LINE)

How often do (does):

	Always or most of the time	About half the time	Sometimes	Never	Does Not Apply	
a. YOU speak that language to your mother (or female guardian)	1	2	3	4	5	69/
b. Your MOTHER (or female guardian) speaks that language to you	1	2	3	4	5	70/
c. YOU speak that language to your father (or male guardian)	1	2	3	4	5	71/
d. Your FATHER (or male guardian) speaks that language to you	1	2	3	4	5	72/
e. Your PARENTS (or guardians) speak that language to each other	1	2	3	4	5	73/
f. Your GRANDPARENTS speak that language to you	1	2	3	4	5	74/
g. Your BROTHERS or SISTERS speak that language to you	1	2	3	4	5	75/
h. YOU speak that language with your best friends in your neighborhood	1	2	3	4	5	76/
i. YOU speak that language with your best friends in school	1	2	3	4	5	77/

BEGIN
DECK 12

26. How well do you do the following?

(CIRCLE ONE ON EACH LINE)

How well do you ...	Very Well	Pretty Well	Well	Not Very Well	
a. Understand spoken English	1	2	3	4	07/
b. Speak English	1	2	3	4	08/
c. Read English	1	2	3	4	09/
d. Write English	1	2	3	4	10/

27. During your first two years in school in the United States, were any of the following subjects taught to you in a language other than English? Do not include regular foreign language classes.

IF THIS IS YOUR FIRST YEAR IN THE UNITED STATES ANSWER FOR THIS YEAR ONLY.

(CIRCLE ONE ON EACH LINE)

	Yes	No	Subject Not Taught	
a. Math	1	2	3	11/
b. Science	1	2	3	12/
c. United States literature or language such as reading or writing	1	2	3	13/
d. United States history, government or social studies	1	2	3	14/
e. Literature or language arts from the culture your ancestors came from	1	2	3	15/
f. History, government or social studies from the culture your ancestors came from	1	2	3	16/

28. Were you ever enrolled in an English language/language assistance program, that is, a program for students whose native language is not English?

(CIRCLE ONE)

Yes .... 1 --> **GO TO** Question 29 17/

No.................... 2 --> Please **SKIP TO** Page 1 of the Main Questionnaire

29. In which grade(s) were you enrolled in this type of program?

(CIRCLE ALL THAT APPLY)

1st grade	1	18/	5th grade	1	22/
2nd grade	1	19/	6th grade	1	23/
3rd grade	1	20/	7th grade	1	24/
4th grade	1	21/	8th grade	1	25/

PLEASE GO ON TO THE MAIN QUESTIONNAIRE BOOKLET

Item 2

Eighth Grade Questionnaire

Form Approved
O.M.B. No. 1850-05
App. Exp.: 6/30/19

EIGHTH GRADE QUESTIONNAIRE

NELS:88
NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988
FIELD TEST

Prepared for: U.S. Department of Education
Center for Education Statistics

By: NORC, A Social Science Research Center
University of Chicago

BEGIN
DECK 13

01-06/ (

As a matter of policy, the Center for Statistics is concerned with protecting the privacy of individuals who participate in voluntary surveys. We want to let you know that:

1. Section 406 of the General Education Provisions Act (20-USC 1221e-1) allows us to ask you the questions in this questionnaire.
2. You may skip any questions you do not wish to answer.
3. We are asking you these questions in order to gather information about what happens to students as they move out of high school and make decisions about postsecondary education and work.
4. Your responses will be merged with those of other students, and the answers you give will never be identified as yours.

GENERAL INSTRUCTIONS

PLEASE READ EACH QUESTION CAREFULLY

It is important that you follow the directions for responding to each kind of question. These are:

(CIRCLE ONE)

What is the color of your eyes?

(CIRCLE ONE)

Brown 1
Blue 2
Green .... [✓ 3]
Another Color 4

If the color of your eyes is green, you would circle the three as shown.

(CIRCLE ALL THAT APPLY)

Last week, did you do any of the following?

(CIRCLE ALL THAT APPLY)

a. See a play 1
b. Go to a movie .... [✓ 2]
c. Attend a sporting event ..... [✓ 3]

If you went to a movie and attended a sporting event last week, you would circle two items as shown.

(CIRCLE ONE ON EACH LINE)

Do you plan to do any of the following next week?

(CIRCLE ONE ON EACH LINE)

	Yes	Not Sure	No
a. Visit a relative	1	2	[✓ 3]
b. Go to a museum	1	[✓ 2]	3
c. Study at a friend's house	[✓ 1]	2	3

If you plan to study at a friend's house, do not plan to visit a relative, and are not sure about going to a museum next week, you would circle one on each line as shown.

This questionnaire is not a test. We hope you will answer every question, but you may skip any question you do not wish to answer.

PART-1 YOUR FAMILY

Next we would like to ask you some background information.

1. We would like to ask you about the area of the world your ancestors
*** lived in BEFORE coming to America. What do you consider your background? If your ancestors came from more than one area, please circle below the one area you consider the most important part of your background.**

	(CIRCLE ONE)	
HISPANIC OR SPANISH		
Mexican	01	07-08/
Cuban	02	
Puerto Rican	03	
Other Hispanic (WRITE IN) ______________________	04	
ASIAN OR PACIFIC ISLANDER		
Chinese	05	
Filipino	06	
Japanese	07	
Korean	08	
Southeast Asian (Vietnamese, Laotian, Cambodian/Kampuchean, etc.)	09	
Pacific Islander	10	
Other Asian (WRITE IN) ______________________	11	
NEITHER HISPANIC NOR ASIAN OR PACIFIC ISLANDER	12	

2. What is your race?
*

(CIRCLE ONE)

Black 1 09/

White 2

American Indian or Alaskan Native 3

Asian or Pacific Islander 4

Other 5

3. About how many students in your grade are . . .

(CIRCLE ONE ON EACH LINE)

	None	A Few	About Half	Most	All	
a. Black?	0	1	2	3	4	10/
b. Hispanic or Spanish?	0	1	2	3	4	11/
c. Asian or Pacific Islander?	0	1	2	3	4	12/

4. Were you born in the United States (that is, any of the fifty states, or the District of Columbia) in Puerto Rico or in another country or area?

(CIRCLE ONE)

I was born in the United States .... 1 --> **SKIP TO** Question 7, next page 13/

I was born in Puerto Rico .... 2 --> **GO TO** Question 5, next page

I was born in another country/area . 3 --> **GO TO** Question 5, next page

5. How old were you when you first came to the fifty states or the District of Columbia?

(CIRCLE ONE)

Age		Age		
1 year old or less	01	9 years old	09	14-15
2 years old	02	10 years old	10	
3 years old	03	11 years old	11	
4 years old	04	12 years old	12	
5 years old	05	13 years old	13	
6 years old	06	14 years old	14	
7 years old	07	15 years old	15	
8 years old	08	16 years old or older	16	

6. What grade were you placed in when you arrived in the fifty states or the District of Columbia for the first time?

(CIRCLE ONE)

Arrived before School age	09	Fourth grade	04	16-1
Kindergarten	00	Fifth grade	05	
First grade	01	Sixth grade	06	
Second grade	02	Seventh grade	07	
Third grade	03	Eighth grade	08	

7. Have you completed any grades in schools outside the fifty states or the District of Columbia?

(CIRCLE ONE)

Yes .... 1 --> **GO TO** Question 8, next page 18/

No .... 2 --> **SKIP TO** Question 9, next page

8. Which grades have you completed outside the United States?

(CIRCLE ALL THAT APPLY)

First grade	1	19/	Fifth grade	1	23/
Second grade	1	20/	Sixth grade	1	24/
Third grade	1	21/	Seventh grade	1	25/
Fourth grade	1	22/	Eighth grade	1	26/

9. Do you or have you received special services for any or all of the following
* conditions?

(CIRCLE ONE ON EACH LINE)

	Yes	No	
a. A problem with your vision (not corrected with glasses)	1	2	27/
b. Hearing problem	1	2	28/
c. Deafness	1	2	29/
d. Speech problem	1	2	30/
e. Orthopedically impaired (for example, club foot, absence of arm or leg, cerebral palsy, amputation, polio)	1	2	31/
f. Specific learning disability (for example, imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations)	1	2	32/
g. Other major health problem (WRITE IN BELOW)	1	2	33/

____

10. How many brothers and sisters do you have? Please include any stepbrothers and/or stepsisters if they live or have lived in your home.

(CIRCLE ONE)

None	0	34/
One	1	
Two	2	
Three	3	
Four	4	
Five	5	
Six or more	6	

11. How many of your brothers and sisters are older than you are? Please include any stepbrothers and stepsisters if they live or have lived in your home.

(CIRCLE ONE)

None	0	35/
One	1	
Two	2	
Three	3	
Four	4	
Five	5	
Six or more	6	

12. What is your father's (or male guardian's) job and what is your mother's or (female guardian's) job? Give as much detail as possible. For example, if your father is a writer, tell whether he writes books, newspaper or magazine articles or if he is a technical writer who writes car instruction manuals for instance. If your mother works as a teacher, tell us what kind of school she works for (such as a elementary, high school, university).

Father (or male guardian)

Name of Occupation ______________________________

Describe what he does ______________________________

Name of employer ______________________________

What does the company make or do ______________________________

Mother (or female guardian)

Name of Occupation ______________________________

Describe what she does ______________________________

Name of employer ______________________________

What does the company make or do ______________________________

13. Which of the categories below come closest to describing these jobs?
*** (CIRCLE ONE FOR YOUR FATHER'S JOB AND ONE FOR YOUR MOTHER'S JOB.)**

	a. Father (or male guardian)	**b. Mother (or female guardian)**
	36-37/	38-39/
CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent	01	01
CRAFTSPERSON such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter	02	02
FARMER, FARM MANAGER	03	03
HOMEMAKER OR HOUSEWIFE ONLY	04	04
LABORER such as construction worker, car washer, sanitary worker, farm laborer	05	05
MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official	06	06
MILITARY such as career officer, enlisted man or woman in the Armed Forces	07	07
OPERATIVE such as meat cutter, assembler, machine operator, welder; taxicab, bus, or truck driver	08	08

Continued, next page------>

13. Continued

	Father (or male guardian)	Mother (or female guardian)
	36-37 /	38-39 /
PROFESSIONAL such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician, but not including school teacher	09	09
PROFESSIONAL such as clergyman, dentist, physician, lawyer, scientist, college teacher	10	10
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner	11	11
PROTECTIVE SERVICE such as detective, police officer or guard, sheriff, fire fighter	12	12
SALES such as salesperson, advertising or insurance agent, real estate broker	13	13
SCHOOL TEACHER such as elementary or secondary	14	14
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter	15	15
TECHNICAL such as draftsman, medical or dental technician, computer programmer	16	16
Never worked	17	17
Don't know	98	98

14. What was the highest level of education your father (stepfather or male guardian) and your mother (stepmother or female guardian) completed?

	(CIRCLE ONE) a. Father (or male guardian) 40-41/	**(CIRCLE ONE)** b. Mother (or female guardian) 42-43/
Less than high school diploma	01	01
High school diploma	02	02
Vocational, trade, or business school after high school		
Less than two years	03	03
Two years or more	04	04
College program		
Less than two years of college	05	05
Two or more years of college (including two year degree)	06	06
Finished college (four- or five-year degree)	07	07
Master's degree or equivalent	08	08
Ph.D., M.D., or other advanced professional degree	09	09
Don't know	98	98

15. How many rooms are there in your home? Count only the rooms your family lives in. Family may include grandparents and other relatives if they live in your home. Count the kitchen (if separate) but NOT bathrooms.

(CIRCLE ONE)

01 02 03 04 05 06 07 08 09 10 or more 44-45/

16. Which of the following does your family have in your home?

(CIRCLE ONE ON EACH LINE)

	Have	Do not have	
a. A specific place for study?	1	2	46/
b. A daily newspaper?	1	2	47/
c. An encyclopedia?	1	2	48/
d. An atlas?	1	2	49/
e. A dictionary?	1	2	50/
f. Typewriter?	1	2	51/
g. Computer?	1	2	52/
h. Electric dishwasher?	1	2	53/
i. Two or more cars or trucks that run?	1	2	54/
j. More than 50 books?	1	2	55/
k. And do you have a room of your own?	1	2	56/

17. Since the beginning of the school year, how often have you discussed the following with either or both of your parents or guardians:

(CIRCLE ONE ON EACH LINE)

	Not at all	Once or twice	Three or more times	
a. Selecting courses or programs at school	1	2	3	57/
b. School activities or events of particular interest to you	1	2	3	58/
c. Things you've studied in class	1	2	3	59/

18. Since the beginning of this school year, has either of your parents or guardians done any of the following:

(CIRCLE ONE ON EACH LINE)

	Yes	No	I don't know	
a. Attended a school meeting	1	2	8	60/
b. Phoned or spoken to your teacher or counselor	1	2	8	61/
c. Visited your classes	1	2	8	62/
d. Attended a school event such as a play, concert, gym exhibit, sports competition, honor ceremony or science fair where YOU participated	1	2	8	63/

19. How often do your PARENTS or guardians do the following:

(CIRCLE ONE ON EACH LINE)

	Often	Sometimes	Rarely	Never	
a. Check on whether you have done your homework	1	2	3	4	64/
b. Require you to do work or chores around the home	1	2	3	4	65/
c. Limit the amount of time you can spend watching TV	1	2	3	4	66/

20. How much do you take part in decisions that affect you? (For example, which student clubs or activities you will take part in, or how late you will stay out.)

(CIRCLE ONE)

Very much 1 67/

Much 2

Some 3

None at all 4

21. Are the following statements mostly true for you and your parents, or mostly false for you and your parents?

(CIRCLE ONE ON EACH LINE)

	True	False	
a. My parents trust me to do what they expect without checking up on me	1	2	68/
b. I often do not know WHY I am supposed to do what my parents tell me to do	1	2	69/
c. I often count on my parents to solve many of my problems for me	1	2	70/

22. How much time, on an average school day, do you spend at home after school with no adult present?

(CIRCLE ONE)

None--never happens 1 71/

Less than 1 hour 2

1-2 hours 3

2-3 hours 4

More than 3 hours 5

23. How many hours a day do you USUALLY watch TV?

HOURS PER DAY	a. On weekdays (Circle One Below) 72/	b. On weekends (Circle One Below) 73/
Don't watch TV	0	0
Less than one hour a day	1	1
1-2 hours	2	2
2-3 hours	3	3
3-4 hours	4	4
4-5 hours	5	5
Over 5 hours a day	6	6

24. How many cigarettes do you usually smoke in a day?

	(CIRCLE ONE)	
Don't smoke	0	74/
1 to 5 cigarettes a day	1	
About 1/2 pack a day	2	
About 1 pack a day	3	
About 1 and 1/2 packs a day	4	
2 or more packs a day	5	

DECK 14

PART-2 YOUR OPINIONS ABOUT YOURSELF

25. How do you feel about each of the following statements?

(CIRCLE ONE ON EACH LINE)

	Agree strongly	Agree	Disagree	Disagree strongly	
a. I feel good about myself	1	2	3	4	07/
b. I don't have enough control over the direction my life is taking	1	2	3	4	08/
c. In my life, good luck is more important than hard work for success	1	2	3	4	09/
d. I feel I am a person of worth, the equal of other people	1	2	3	4	10/
e. I am able to do things as well as most other people	1	2	3	4	11/
f. Every time I try to get ahead, something or somebody stops me	1	2	3	4	12/
g. My plans hardly ever work out, so planning only makes me unhappy	1	2	3	4	13/
h. I try to accept my condition in life, rather than try to change things	1	2	3	4	14/
i. On the whole, I am satisfied with myself	1	2	3	4	15/
j. I certainly feel useless at times	1	2	3	4	16/

Cont. next page

(CIRCLE ONE ON EACH LINE)

	Agree strongly	Agree	Disagree	Disagree strongly	
k. I have a big influence over the things that happen to me	1	2	3	4	17/
l. At times I think I am no good at all	1	2	3	4	18/
m. When I make plans, I am almost certain I can make them work	1	2	3	4	19/
n. I feel I do not have much to be proud of	1	2	3	4	20/
o. What happens to me is my own doing	1	2	3	4	21/
p. I feel that I have a number of good qualities	1	2	3	4	22/
q. Chance and luck are very important for what happens in my life	1	2	3	4	23/
r. I wish I could have more respect for myself	1	2	3	4	24/
s. All in all, I pretty much feel that I am a failure	1	2	3	4	25/

PART-3 YOUR PLANS FOR THE FUTURE

26. As things stand now, how far in school do you think you will get?
*

		(CIRCLE ONE)	26/
Won't finish high school		1	
Will graduate from high school, but won't go any farther		2	
Will go to vocational, trade, or business school after high school		3	
College --	Will attend college	4	
	Will graduate from college	5	
	Will attend a higher level of school after graduating from college	6	

27. How far in school do you think your parents (guardians) want you to go?

		a. (CIRCLE ONE) Father (or male guardian) 27/	b. (CIRCLE ONE) Mother (or female guardian) 28/
Less than high school graduation		1	1
Graduate from high school, but not go any farther		2	2
Go to vocational, trade, or business school after high school		3	3
College --	Attend college	4	4
	Graduate from college	5	5
	Attend a higher level of school after graduating from college	6	6
Don't know		8	8

28. In which of the following types of programs do you expect to enroll in high school?

(CIRCLE ONE)

Academic or college preparatory 1 29/

Vocational (trade) 2

General 3

Other (**WRITE IN**) ______________________________ 4

I don't know................................... 8

29. How often have you talked to the following people about planning your high school program?

(CIRCLE ONE ON EACH LINE)

	Not at all	Once or twice	Three or more times	
a. Your father (or male guardian)	0	1	2	30/
b. Your mother (or female guardian)	0	1	2	31/
c. A guidance counselor	0	1	2	32/
d. Teachers	0	1	2	33/
e. Friends or relatives about your own age	0	1	2	34/

30. Since the beginning of this school year, how often have you talked to a counselor at your school, for any of the following reasons:

(CIRCLE ONE ON EACH LINE)

	Never	Once	Twice	3 or more times	
a. To get information about high schools and high school programs	0	1	2	3	35/
b. To get information about jobs or careers that you might be interested in after finishing school	0	1	2	3	36/
c. To help improve your academic work in school right now	0	1	2	3	37/
d. Because of discipline problems	0	1	2	3	38/
e. To get counseling on alcohol or drug abuse	0	1	2	3	39/

DECK 14

31. **Since the start of this school year have you received any information on vocational education?**

(CIRCLE ONE)

Yes .... 1 --> **GO TO** Question 32 40/

No .... 2 --> **SKIP TO** Question 33

32. **How did you get this information?**

(CIRCLE ALL THAT APPLY)

a. Special course on careers 1 41/

b. Special counseling 1 42/

c. Written descriptions of courses or programs to take home 1 43/

d. Other **(WRITE IN)** ________________________ 1 44/

33. **Have you taken any special test that would indicate your aptitude** (potential talent or capability) for a particular career and/or job?

(CIRCLE ONE)

Yes 1 45/

No 2

I don't know 8

34. What kind of work will you be doing when you are 30 years old? (CIRCLE THE ANSWER THAT COMES CLOSEST TO WHAT YOU EXPECT TO BE DOING.)

(CIRCLE ONE)

CRAFTSPERSON OR OPERATOR such as baker, mechanic, cook, machine operator, clothing presser, bus driver, taxi driver, truck driver	01	46-47
FARMER OR FARM MANAGER	02	
HOUSEWIFE/HOMEMAKER	03	
LABORER OR FARM WORKER such as farm hand, garbage collector, car washer, construction worker	04	
MILITARY, POLICE, OR SECURITY OFFICER such as career officer or enlisted person in the armed forces, police officer, security guard, firefighter, detective	05	
PROFESSIONAL, BUSINESS, OR MANAGERIAL such as professor, teacher, librarian, nurse, doctor, dentist, restaurant manager, buyer, business executive	06	
OWNER such as owner of business or service	07	
TECHNICAL such as draftsman, medical or dental technician, computer programmer	08	
SALESPERSON, CLERICAL OR OFFICE WORKER such as sales clerk, real estate agent, newsstand operator, data entry clerk, secretary, bank teller	09	
SCIENCE OR ENGINEERING PROFESSIONAL such as engineer or scientist	10	
SERVICE WORKER such as waiter, hairdresser, worker in fast food establishment, cook, janitor, beautician, childcare worker	11	
OTHER (PLEASE DESCRIBE) ______________________________	12	
NOT WORKING	13	
DON'T KNOW	98	

PART-4 YOUR JOBS AND CHORES

35. Not counting chores around the house, how many hours do/did you work a week on your present or most recent job?

(CIRCLE ONE)

None, never worked for pay	0	--> **SKIP TO** Question 38, next page	48/
Up to 4 hours a week	1	--> **GO TO** Question 36	
5-10 hours a week	2	--> **GO TO** Question 36	
11-20 hours a week	3	--> **GO TO** Question 36	
21 or more hours a week	4	--> **GO TO** Question 36	

36. Which of the job categories below comes closest to the kind of work you do/did for pay on your current or most recent job? (Do not include work around the house. If more than one kind of work, choose the one that paid you the most per hour.)

(CIRCLE ONE)

Have not worked for pay	00	49-50/
Lawn work or odd jobs	01	
Waiter or waitress	02	
Newspaper route	03	
Babysitting or child care	04	
Farm or agricultural work	05	
Other manual labor	06	
Store clerk, salesperson	07	
Office or clerical	08	
Other **(WRITE IN BELOW)**	09	

____

37. Did you do any work for pay last week, not counting work around the house?

(CIRCLE ONE)

Yes	1	51/
No	2	

PART-5 YOUR SCHOOL LIFE

38. During the first semester of the current school year, has any of the following things happened to you?

(CIRCLE ONE ON EACH LINE)

	Never	Once or twice	More than twice	
a. I was sent to the office because I was misbehaving	0	1	2	52/
b. I was sent to the office, because of problems with my school work	0	1	2	53/
c. I was kept after school for misbehaving	0	1	2	54/
d. My parents received a warning about my attendance	0	1	2	55/
e. My parents received a warning about my grades	0	1	2	56/
f. My parents received a warning about my behavior	0	1	2	57/
g. I got into a physical fight with another student	0	1	2	58/

39. How do you think other students in your classes see you?

(CIRCLE ONE ON EACH LINE)

Other students in your class see you . . .

	Very	Somewhat	Not at all	
a. As popular?	1	2	3	59/
b. As athletic?	1	2	3	60/
c. As socially active?	1	2	3	61/
d. As a good student?	1	2	3	62/
e. As important?	1	2	3	63/
f. As a trouble-maker?	1	2	3	64/
g. As part of the "in" crowd?	1	2	3	65/

IN THE NEXT SET OF QUESTIONS WE ARE INTERESTED IN YOUR THOUGHTS ABOUT YOUR SCHOOL.

40. During the first semester of the current school year, how many times have any of the following things happened to you?

(CIRCLE ONE ON EACH LINE)

	Never	Once or Twice	More than Twice	
a. I had something stolen from me at school	0	1	2	66/
b. Someone offered to sell me drugs at school	0	1	2	67/
c. Someone threatened to hurt me at school	0	1	2	68/

DECK 14-1

41. Indicate the degree to which each of the following matters are a problem in your school.

(CIRCLE ONE ON EACH LINE)

	Serious	Moderate	Minor	Not a problem	
a. Student tardiness	1	2	3	4	69/
b. Student absenteeism	1	2	3	4	70/
c. Student cutting class	1	2	3	4	71/
d. Physical conflicts among students	1	2	3	4	72/
e. Robbery or theft	1	2	3	4	73/
f. Vandalism of school property	1	2	3	4	74/
g. Student use of alcohol	1	2	3	4	75/
h. Student use of illicit drugs	1	2	3	4	76/
i. Student possession of weapons	1	2	3	4	77/
j. Physical abuse of teachers	1	2	3	4	BEGIN DECK 15 07/
k. Verbal abuse of teachers	1	2	3	4	08/

42. How much do you agree with each of the following statements about your school and teachers?

(CIRCLE ONE ON EACH LINE)

	Strongly agree	Agree	Disagree	Strongly disagree	
a. Students get along well with teachers	1	2	3	4	09/
b. There is real school spirit	1	2	3	4	10/
c. Rules for behavior are strict	1	2	3	4	11/
d. Discipline is fair	1	2	3	4	12/
e. Other students often disrupt class	1	2	3	4	13/
f. The teaching is good	1	2	3	4	14/
g. Teachers are interested in students	1	2	3	4	15/
h. When I work hard on schoolwork, my teachers praise my effort	1	2	3	4	16/
i. In class I often feel "put down" by my teachers	1	2	3	4	17/
j. Most of my teachers really listen to what I have to say	1	2	3	4	18/
k. I don't feel safe at this school	1	2	3	4	19/
l. Disruptions by other students get in the way of my learning	1	2	3	4	20/
m. Misbehaving students often get away with it	1	2	3	4	21/

PART-6 YOUR SCHOOLWORK

Sometimes students are put in different groups, so that they are with other students of similar ability. The next questions are about ability groups in certain school subjects.

43. What ability group are you in for the following classes?
*****

(CIRCLE ONE ON EACH LINE)

	High	Middle	Low	We aren't grouped	I don't know	
a. Mathematics	1	2	3	4	8	22/
b. Science	1	2	3	4	8	23/
c. English	1	2	3	4	8	24/
d. Social Studies	1	2	3	4	8	25/

DECK 15

44. Which of the following classes have you had at least once a week during ■ this school year?

(CIRCLE ALL THAT APPLY)

a. **ENGLISH** (including literature, composition, language arts)	1	26/
b. **SOCIAL STUDIES** (including government or civics, history, economics, geography, current events)	1	27/
c. **FOREIGN LANGUAGE**	1	28/
d. **PHYSICAL EDUCATION** (gym)	1	29/
e. **REMEDIAL MATH**	1	30/
f. **REGULAR MATH**	1	31/
g. **ENRICHED MATH** (advanced math, honors math)	1	32/
h. **ALGEBRA**	1	33/
i. **SCIENCE** (general science)	1	34/
j. **BIOLOGY** (life science)	1	35/
k. **EARTH SCIENCE**	1	36/
l. **ART**	1	37/
m. MUSIC	1	38/
n. COMPUTER EDUCATION	1	39/
o. DRAMA OR SPEECH	1	40/
p. RELIGIOUS EDUCATION	1	41/
q. HEALTH EDUCATION	1	42/
r. HOME ECONOMICS OR FAMILY LIVING	1	43/
s. SHOP (industrial arts)	1	44/
t. TYPING OR BUSINESS EDUCATION	1	45/
u. CAREER GUIDANCE (occupational awareness or orientation)	1	46/
v. AGRICULTURE	1	47/
w. SEX EDUCATION	1	48/
x. A SCIENCE COURSE IN WHICH YOU HAVE A LABORATORY	1	49/
y. OTHER (WRITE IN) ______________________________	1	50/

45. Are you enrolled in any courses that give you additional help in English or math?

(CIRCLE ONE ON EACH LINE)

	Yes	No	
a. Remedial English (language arts)	1	2	51/
b. Remedial Mathematics	1	2	52/

46. Are you enrolled in advanced or enriched courses in any of the following areas?

(CIRCLE ONE ON EACH LINE)

	Yes	No	
a. English (language arts)	1	2	53/
b. Social Studies	1	2	54/
c. Science	1	2	55/
d. Mathematics	1	2	56/

47. Have you ever taken classes on drug or alcohol abuse, or sex education classes?

(CIRCLE ONE)

	Yes	No	
a. Alcohol or drug abuse education	1	2	57/
b. Family life or sex education	1	2	58/

48. **Are you enrolled in any of the following special programs/services?**

(CIRCLE ONE ON EACH LINE)

	Yes	**No**	
a. Classes for gifted or talented students	1	2	59/
b. Special instruction for those whose first language is not English--for example, bilingual education or English as a second language (not regular English classes.)	1	2	60/
c. Special services for the orthopedically handicapped	1	2	61/
d. Special Education services for students with learning problems	1	2	62/

Questions 49-52

For each of the eighth grade subjects listed below, mark the statement that best expresses your opinion.

49. MATHEMATICS

(CIRCLE ONE ON EACH LINE)

	Agree	Disagree	Don't know	
a. Mathematics class is usually fun	1	2	8	63/
b. I usually look forward to mathematics class	1	2	8	64/
c. I often am afraid to ask questions in mathematics class	1	2	8	65/
d. Math will be useful in my future	1	2	8	66/

50. ENGLISH

(CIRCLE ONE ON EACH LINE)

	Agree	Disagree	Don't know	
a. English class is usually fun	1	2	8	67/
b. I usually look forward to English class	1	2	8	68/
c. I often am afraid to ask questions in English class	1	2	8	69/
d. English will be useful in my future	1	2	8	70/

51. SOCIAL STUDIES

(CIRCLE ONE ON EACH LINE)

	Agree	Disagree	Don't know	
a. Social studies class is usually fun	1	2	8	71/
b. I usually look forward to social studies class	1	2	8	72/
c. I often am afraid to ask questions in social studies class	1	2	8	73/
d. Social studies will be useful in my future	1	2	8	74/

52. SCIENCE

(CIRCLE ONE ON EACH LINE)

	Agree	Disagree	Don't know	
a. Science class is usually fun	1	2	8	75/
b. I usually look forward to science class	1	2	8	76/
c. I often am afraid to ask questions in science class	1	2	8	77/
d. Science will be useful in my future	1	2	8	78/

53. Do you ever feel bored when you are at school?

(CIRCLE ONE)

BEGIN DECK 16

07/

Never 1

Once in a while 2

About half of the time 3

Most of the time 4

DECK 16

54. Were you ever held back (made to repeat) a grade in school?

No .... 1 --> **GO TO** Question 55 08/

Yes .... 2 --> **I repeated grade(s):**

(CIRCLE ALL THAT APPLY)

GRADES REPEATED

a. Kindergarten 1 09/

b. Grade 1 .... 1 10/

c. Grade 2 .... 1 11/

d. Grade 3 .... 1 12/

e. Grade 4 .... 1 13/

f. Grade 5 .... 1 14/

g. Grade 6 .... 1 15/

h. Grade 7 .... 1 16/

i. Grade 8................ 1 17/

55. How many different schools have you attended since starting first grade?

(CIRCLE ONE)

1 school 1 18/

2 2

3 3

4 4

5 or more schools 5

56. Did you go to any of these?

(CIRCLE ONE ON EACH LINE)

	Yes	No	I don't know	
a. Kindergarten	1	2	8	19/
b. Day care	1	2	8	20/
c. Nursery school or preschool	1	2	8	21/
d. Head Start	1	2	8	22/
e. Extended Day	1	2	8	23/

57. How many days of school did you miss over the past four weeks?

(CIRCLE ONE)

None 1 24/

1 or 2 days 2

3 or 4 days 3

5 to 10 days 4

More than 10 days 5

58. How often do you cut or skip classes?

(CIRCLE ONE)

Never or almost never 1 25/

Sometimes, but less
than once a week 2

Not every day, but
at least once a week 3

Daily 4

59. How many times were you late for school over the past four weeks?

(CIRCLE ONE)

None 0 26/

1 or 2 days 1

3 or 4 days 2

5 to 10 days 3

More than 10 days 4

60. How often do you come to class and find yourself WITHOUT these things?

(CIRCLE ONE ON EACH LINE)

	Usually	Often	Seldom	Never	
a. Pencil or paper (if needed)	1	2	3	4	27/
b. Books (if needed)	1	2	3	4	28/
c. Your homework done (if assigned)	1	2	3	4	29/

61. In the following subjects, about how much time do you spend on homework EACH WEEK?

(CIRCLE ONE ON EACH LINE)

HOURS PER WEEK:	None	less than 1 hour	1 hour	2 hours	3 hours	4-6 hours	7-9 hours	10 or more	
a. Mathematics homework	00	01	02	03	04	05	06	07	30-31/
b. Science homework	00	01	02	03	04	05	06	07	32-33/
c. English homework	00	01	02	03	04	05	06	07	34-35
d. Social Studies homework	00	01	02	03	04	05	06	07	36-37
e. Homework for all other subjects	00	01	02	03	04	05	06	07	38-39

62. How much additional reading do you do each week on your own outside school--not in connection with schoolwork?

(CIRCLE ONE)

None 0 40/

1 hour or less per week 1

2 hours 2

3 hours 3

4-5 hours 4

6 hours or more per week 5

63. Mark the statement that best describes your grades in school from sixth grade up till now:

(CIRCLE ONE)

Mostly As (or a numerical average of 90 - 100) 01 41-42/

About half As and half Bs (or 85 - 89) 02

Mostly Bs (or 80 - 84) 03

About half Bs and half Cs (or 75 - 79) 04

Mostly Cs (or 70 - 74) 05

About half Cs and half Ds (or 65 - 69) 06

Mostly Ds (or 60 - 64) 07

Mostly below D 08

Does not apply to me--my classes are not graded 09

64. For each of the school subjects listed below, mark the statement that best describes your grades from sixth grade up till now.

(CIRCLE ONE)

a. ENGLISH

Mostly As (a numerical average of 90 - 100) 1 43/

Mostly Bs (80 - 89) 2

Mostly Cs (70 - 79) 3

Mostly Ds (60 - 69) 4

Mostly below D (below 60) 5

Does not apply to me--my classes are not graded 6

b. MATHEMATICS (CIRCLE ONE)

Mostly As (a numerical average of 90 - 100) 1 44/

Mostly Bs (80 - 89) 2

Mostly Cs (70 - 79) 3

Mostly Ds (60 - 69) 4

Mostly below D (below 60) 5

Does not apply to me--my classes are not graded 6

c. SCIENCE **(CIRCLE ONE)**

Mostly As (a numerical average of 90 - 100) 1 45/

Mostly Bs (80 - 89) 2

Mostly Cs (70 - 79) 3

Mostly Ds (60 - 69) 4

Mostly below D (below 60) 5

Does not apply to me--my classes are not graded 6

d. SOCIAL STUDIES **(CIRCLE ONE)**

Mostly As (a numerical average of 90 - 100) 1 46/

Mostly Bs (80 - 89) 2

Mostly Cs (70 - 79) 3

Mostly Ds (60 - 69) 4

Mostly below D (below 60) 5

Does not apply to me--my classes are not graded 6

PART-7 YOUR ACTIVITIES

65. **Have you taken part or will you have participated in any of the following types of school activities during the current school year, either as a member, or as an officer (for example, vice-president, coordinator, team captain)?**

(CIRCLE ALL THAT APPLY)

	Yes, member or participant		Yes, officer or leader	
a. **Science fairs**	1	47/	1	48/
b. **School varsity sports (playing against teams from other schools)**	1	49/	1	50/
c. **Intramural sports (playing against teams from your own school)**	1	51/	1	52/
d. **Cheerleading**	1	53/	1	54/
e. **Band**	1	55/	1	56/
f. **Orchestra**	1	57/	1	58/
g. **Chorus or choir**	1	59/	1	60/
h. **Dance**	1	61/	1	62/
i. History club	1	63/	1	64/
j. **Science club**	1	65/	1	66/
k. **Math club**	1	67/	1	68/
l. Foreign Language club	1	69/	1	70/
m. Other subject matter club (**WRITE IN** ____________________)	1	71/	1	72/
n. Debate or speech team	1	73/	1	74/
o. **Drama club**	1	75/	1	76/
	BEGIN DECK 17			
p. Academic Honors Society	1	07/	1	08/
q. Student newspaper	1	09/	1	10/

Cont. next page

(CIRCLE ALL THAT APPLY)

	Yes, member or participant		Yes, officer or leader	
r. Student yearbook	1	11/	1	12/
s. Service club	1	13/	1	14/
t. Student council	1	15/	1	16/
u. Computer club	1	17/	1	18/
v. Religious organization	1	19/	1	20/
w. Vocational education club	1	21/	1	22/
x. Other school club (**WRITE IN** ____________________)	1	23/	1	24/

66. Have you taken part or will you have participated in any of the following types of outside-school activities this year, either as a member, or as an officer (for example, vice-president, coordinator, team captain)?

(CIRCLE ALL THAT APPLY)

	Yes, member or participant	Yes, officer or leader
a. Scouting	1 25/	1 26/
b. Church youth groups	1 27/	1 28/
c. Hobby clubs	1 29/	1 30/
d. Neighborhood clubs or programs	1 31/	1 32/
e. Boys' clubs or girls' clubs	1 33/	1 34/
f. Non-school team sports	1 35/	1 36/
g. 4-H	1 37/	1 38/
h. Y or other youth groups	1 39/	1 40/
i. Summer programs, such as summer workshops or institutes in science, language, drama, debate, and so on	1 41/	1 42/
j. Other (WRITE IN) ____________________	1 43/	1 44/

Item 3

Tenth Grade Questionnaire

Form Approved
O.M.B. No. 1850-0593
App. Exp.: 6/30/1987

TENTH GRADE QUESTIONNAIRE

NELS:88
NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988
FIELD TEST

Prepared for: U.S. Department of Education
Center for Education Statistics

By: NORC, A Social Science Research Center
University of Chicago

As a matter of policy, the Center for Statistics is concerned with protecting the privacy of individuals who participate in voluntary surveys. We want to let you know that:

1. Section 406 of the General Education Provisions Act (20-USC 1221e-1) allows us to ask you the questions in this questionnaire.
2. You may skip any questions you do not wish to answer.
3. We are asking you these questions in order to gather information about what happens to students as they move out of high school and make decisions about postsecondary education and work.
4. Your responses will be merged with those of other students, and the answers you give will never be identified as yours.

GENERAL INSTRUCTIONS

PLEASE READ EACH QUESTION CAREFULLY

It is important that you follow the directions for responding to each kind of question. These are:

(CIRCLE ONE)

What is the color of your eyes?

(CIRCLE ONE)

Brown 1
Blue 2
Green .... [✓ 3]
Another Color 4

If the color of your eyes is green, you would circle the three as shown.

(CIRCLE ALL THAT APPLY)

Last week, did you do any of the following?

(CIRCLE ALL THAT APPLY)

a. See a play 1
b. Go to a movie .... [✓ 2]
c. Attend a sporting event .... [✓ 3]

If you went to a movie and attended a sporting event last week, you would circle two items as shown.

(CIRCLE ONE ON EACH LINE)

Do you plan to do any of the following next week?

(CIRCLE ONE ONE EACH LINE)

	Yes	Not Sure	No
a. Visit a relative	1	2	[✓ 3]
b. Go to a museum	1	[✓ 2]	3
c. Study at a friend's house	[✓ 1]	2	3

If you plan to study at a friend's house, do not plan to visit a relative, and are not sure about going to a museum next week, you would circle one on each line as shown.

This questionnaire is not a test. We hope you will answer every question, but you may skip any question you do not wish to answer.

WE HOPE YOU WILL ANSWER EVERY QUESTION, BUT YOU MAY SKIP ANY QUESTION YOU DO NOT WISH TO ANSWER.

1. Which of the following best describes your present high school program?

(Circle One)

General	01
Academic or college preparatory	02
Vocational (Occupational preparation)	
Agricultural occupations	03
Business or office occupations	04
Distributive education	05
Health occupations	06
Home economics occupations	07
Technical occupations	08
Trade or industrial occupations	09

2. Were you assigned to the program you are now in, or did you choose it yourself?

(Circle One)

I was assigned	1
I chose it myself	2

3. Do you expect to graduate from high school?

(Circle One)

Yes	1
Probably	2
Probably not	3
No	4

4. When do you expect to leave high school?

(Circle One)

Before the beginning of the next school year (Before September 1987) 1

During the next school year (September 1987 to June 1988) 2

After June 1988 but before graduation 3

After I graduate 4

5. Do you have a definite job lined up after you leave high school?

(Circle One)

Yes 1

No 2

During the tenth grade, including all of this school year, how much course work will you have taken in each of the following subjects? Count only courses that meet at least three times (or three periods) a week.

(Circle One On Each Line)

	None	1/2 year	1 year	More than 1 year
a. Mathematics	1	2	3	4
b. English or Literature	1	2	3	4
c. French	1	2	3	4
d. German	1	2	3	4
e. Spanish	1	2	3	4
f. History or social studies	1	2	3	4
g. Science	1	2	3	4
h. Business, office, or studies	1	2	3	4
i. Trade and industry	1	2	3	4
j. Technical courses	1	2	3	4
k. Other vocational courses	1	2	3	4

6. Which of the following best describes your grades so far in high school?

	(Circle One)
Mostly A's (or a numerical average of 90-100)	01
About half A's and half B's (or 85-89)	02
Mostly B's (or 80-84)	03
About half B's and half C's (or 75-79)	04
Mostly C's (or 70-74)	05
About half C's and half D's (or 65-69)	06
Mostly D's (or 60-64)	07
Mostly below D (or below 60)	08

7. Circle all the statements that apply for each of the subjects listed below.

(Circle All That Apply)

A. Mathematics

- a. I got mostly A's and B's in this subject ... 1
- b. It will be useful in my future 1
- c. It was interesting to me 1
- d. Took no mathematics courses 1

B. English or literature

- a. I got mostly A's and B's in this subject ... 1
- b. It will be useful in my future 1
- c. It was interesting to me 1
- d. Took no English or literature courses 1

C. Business, office, or sales

- a. I got mostly A's and B's in this subject ... 1
- b. It will be useful in my future 1
- c. It was interesting to me 1
- d. Took no business courses 1

D. Trade or industry

- a. I got mostly A's and B's in this subject ... 1
- b. It will be useful in my future 1
- c. It was interesting to me 1
- d. Took no trade or industrial courses......... 1

8. Are you now taking or do you plan to take high school courses in any of the following areas?

(Circle One On Each Line)

		Yes	No	Not Certain
a.	Agriculture, including horticulture	1	2	3
b.	Auto mechanics	1	2	3
c.	Commercial arts	1	2	3
d.	Computer programming or computer operations	1	2	3
e.	Construction trades:			
	1. Carpentry, cabinet making, or millwork	1	2	3
	2. Electrical	1	2	3
	3. Masonry	1	2	3
	4. Plumbing	1	2	3
f.	Cosmetology, hairdressing, or barbering	1	2	3
g.	Drafting	1	2	3
h.	Electronics	1	2	3
i.	Home economics, including dietetics and child care	1	2	3
j.	Machine shop	1	2	3
k.	Medical or dental assisting	1	2	3
l.	Practical nursing	1	2	3
m.	Quantity food occupations	1	2	3
n.	Sales or merchandising	1	2	3
o.	Secretarial, stenographic, typing, or other office work	1	2	3
p.	Welding	1	2	3

9. Have you ever been in any of the following programs?

(Circle One On Each Line)

		Yes	No
a.	Remedial English (sometimes called basic or essential)	1	2
b.	Remedial Mathematics (sometimes called basic or essential)	1	2
c.	Advanced or honors program in English	1	2
d.	Advanced or honors program in Mathematics	1	2
e.	Bilingual or bicultural program	1	2
f.	Family life or sex education	1	2
g.	Alcohol or drug abuse education	1	2
h.	Special program for the educationally handicapped	1	2
i.	Special program for the physically handicapped	1	2

10. Have you ever heard of or participated in any of the following high school educational programs?

(Circle One On Each Line)

	Never heard of this program	Have heard of this program but have not participated	Have participated in this program
a. Cooperative Vocational Education Program (Co-op Program)	1	2	3
b. High School Vocational Education Work-Study Program	1	2	3
c. Talent Search	1	2	3
d. Upward Bound	1	2	3
e. Continuation High School	1	2	3
f. Alternative High School	1	2	3
g. Special School for pregnant girls or mothers	1	2	3
h. JTPA (Job Training Partnership Act)	1	2	3
i. Junior ROTC	1	2	3

11. Approximately what is the average amount of time you spend on homework a week?

(Circle One)

No homework is ever assigned	01
I have homework, but I don't do it	02
Less than 1 hour a week	03
Between 1 and 3 hours a week	04
More than 3 hours, less than 5 hours a week	05
Between 5 and 10 hours a week	06
More than 10 hours a week	07

12. Between the beginning of school last fall and Christmas vacation, about how many days were you absent from school for any reason, not counting illness?

(Circle One)

None	01
1 or 2 days	02
3 or 4 days	03
5 to 10 days	04
11 to 15 days	05
16 to 20 days	06
21 or more	07

13. Between the beginning of school last fall and Christmas vacation, about how many days were you late to school?

(Circle One)

None	01
1 or 2 days	02
3 or 4 days	03
5 to 10 days	04
11 to 15 days	05
16 to 20 days	06
21 or more	07

14. Have you participated in any of the following types of activities either in or out of school this year?

(Circle One On Each Line)

	Have not participated	Have participated actively
a. Athletic teams - in or out of school	1	2
b. Cheer leaders, pep club, majorettes	1	2
c. Debating or drama	1	2
d. Band or orchestra	1	2
e. Chorus or dance	1	2
f. Hobby clubs such as photography, model building, hot rod, electronics, crafts	1	2
g. School subject-matter clubs, such as science, history, language, business, art	1	2
h. Vocational education clubs, such as Future Homemakers, Teachers, Farmers of America, DECA, FBLA, or VICA	1	2
i. Youth organizations in the community, such as Scouts, Y, etc.	1	2
j. Church activities, including youth groups	1	2
k. Junior Achievement	1	2
l. Co-op club	1	2

15. Please mark whether each of the following statements is true or false for you.

(Circle One On Each Line)

	True	False
a. I am usually at ease in English class	1	2
b. Doing English assignments makes me feel tense	1	2
c. English class does not scare me at all	1	2
d. I dread English class	1	2
e. I am usually at ease in Mathematics class	1	2
f. Doing Mathematics assignments makes me feel tense	1	2
g. Mathematics class does not scare me at all	1	2
h. I dread Mathematics class	1	2

16. Which of the following people live in the same household with you?

(Circle All That Apply)

a. I live alone	1
b. Father	1
c. Other male guardian (stepfather or foster father)	1
d. Mother	1
e. Other female guardian (stepmother or foster mother)	1
f. Brother(s) and/or sister(s) (including step- or half-)	1
g. Grandparent(s)	1
h. My husband/wife	1
i. My child or my children	1
j. Other relative(s) (children or adults)	1
k. Non-relative(s) (children or adults)	1

17. Please describe below the job most recently held by your father (stepfather or male guardian), even if he is not working at present.

(WRITE IN)____

Which of the categories below comes closest to describing that job?

	(Circle One)
Do not live with father (stepfather or male guardian)	01
CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent	02
CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter	03
FARMER, FARM MANAGER	04
HOMEMAKER OR HOUSEWIFE ONLY	05
LABORER such as construction worker, car washer, sanitary worker, farm laborer	06
MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official	07
MILITARY such as career officer, enlisted man or woman in the Armed Forces	08

Continued, next page

OPERATIVE such as meat cutter, assembler, machine operator, welder, taxicab, bus, or truck driver	09
PROFESSIONAL such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician, but not including school teacher	10
PROFESSIONAL such as clergyman, dentist, physician, lawyer, scientist, college teacher	11
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner	12
PROTECTIVE SERVICE such as detective, police officer or guard, sheriff, fire fighter	13
SALES such as salesperson, advertising or insurance agent, real estate broker	14
SCHOOL TEACHER such as elementary or secondary	15
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter	16
TECHNICAL such as draftsman, medical or dental technician, computer programmer	17
Never worked	18
Don't know	19

18. Please describe below the job most recently held by your mother (stepmother or female guardian), even if she is not working at present.

(WRITE IN)____

Which of the categories below comes closest to describing that job?

(Circle One)

Do not live with mother (stepmother or female guardian)	01
CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent	02
CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter	03
FARMER, FARM MANAGER	04
HOMEMAKER OR HOUSEWIFE ONLY	05
LABORER such as construction worker, car washer, sanitary worker, farm laborer	06
MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official	07
MILITARY such as career officer, enlisted man or woman in the Armed Forces	08

Continued, next page

OPERATIVE such as meat cutter, assembler, machine operator, welder, taxicab, bus, or truck driver	09
PROFESSIONAL such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician, but not including school teacher	10
PROFESSIONAL such as clergyman, dentist, physician, lawyer, scientist, college teacher	11
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner	12
PROTECTIVE SERVICE such as detective, police officer or guard, sheriff, fire fighter	13
SALES such as salesperson, advertising or insurance agent, real estate broker	14
SCHOOL TEACHER such as elementary or secondary	15
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter	16
TECHNICAL such as draftsman, medical or dental technician, computer programmer	17
Never worked	18
Don't know	19

19. What was the highest level of education your father (stepfather or male guardian) completed?

(Circle One)

Do not live with father (stepfather or male guardian) 01

Less than high school graduation 02

High school graduation only 03

Vocational, trade, or business school after high school ....
- Less than two years 04
- Two years or more 05

College program ....
- Less than two years of college .. 06
- Two or more years of college (including two year degree) 07
- Finished college (four- or five-year degree) 08
- Master's degree or equivalent 09
- Ph.D, M.D., or other advanced degree 10

Don't know 11

20. How much of his life has your father (stepfather or male guardian) spent in the United States?

(Circle One)

All or almost all 01

More than 20 years, but not all 02

About 11-20 years 03

About 6-10 years 04

About 1-5 years 05

Don't know 06

21. What was the highest level of education your mother (stepmother or female guardian) completed?

(Circle One)

Do not live with mother (stepmother or female guardian)		01
Less than high school graduation		02
High school graduation only		03
Vocational, trade, or business school after high school	Less than two years	04
	Two years or more	05
College program	Less than two years of college	06
	Two or more years of college (including two year degree)	07
	Finished college (four- or five-year degree)	08
	Master's degree or equivalent	09
	Ph.D, M.D., or other advanced degree	10
Don't know		11

22. How much of her life has your mother (stepmother or female guardian) spent in the United States?

(Circle One)

All or almost all	01
More than 20 years, but not all	02
About 11-20 years	03
About 6-10 years	04
About 1-5 years	05
Don't know	06

23. Were you born in the United States?

(Circle One)

Yes 1

No 2

24. How much of your life have you spent in the United States?

(Circle One)

All or almost all 1

More than 10 years, but not all 2

About 6-10 years 3

About 1-5 years 4

25. Are the following statements about your parents true or false?

(Circle One On Each Line)

	True	False	Does Not Apply
a. My mother (stepmother or female guardian) keeps close track of how well I am doing in school	1	2	3
b. My father (stepfather or male guardian) keeps close track of how well I am doing in school	1	2	3
c. My parents (or guardians) almost always know where I am and what I'm doing	1	2	3

26. During week days about how many hours per day do you watch TV?

(Circle One)

Don't watch TV during week	01
Less than 1 hour	02
1 hour or more, less than 2	03
2 hours or more, less than 3	04
3 hours or more, less than 4	05
4 hours or more, less than 5	06
5 or more	07

27. How much have you talked to the following people about planning your school program?

(Circle One On Each Line)

	Not At All	Sometimes	A Great Deal
a. Your father	1	2	3
b. Your mother	1	2	3
c. A guidance counselor	1	2	3
d. Teachers	1	2	3
e. Friends or relatives	1	2	3

28. What do each of the following people think you ought to do after high school?

(Circle One On Each Line)

	Go to college	Get a full-time job	Enter a trade school or an apprenticeship	Enter military service	They Don't care	I don't know	Does Not Apply
a. Your father	01	02	03	04	05	06	07
b. Your mother	01	02	03	04	05	06	07
c. A guidance counselor	01	02	03	04	05	06	07
d. Teachers	01	02	03	04	05	06	07
e. Friends or relatives about your own age	01	02	03	04	05	06	07

29. How do you and your friends in this school mostly feel about these different kinds of students?

(Circle One On Each Line)

	Mostly think well of such a student	Mostly do not think well of such a student	Makes no difference
A. Students who get very good grades:			
Do you	1	2	3
Do your friends	1	2	3
B. Students who are very good athletes:			
Do you	1	2	3
Do your friends	1	2	3
C. Students who are very active socially:			
Do you	1	2	3
Do your friends	1	2	3

30. How do other sophomores in your school see you?

(Circle One On Each Line)

	Very	Somewhat	Not at all
a. As popular	1	2	3
b. As athletic	1	2	3
c. As socially active	1	2	3
d. As a good student	1	2	3
e. As important	1	2	3
f. As a trouble-maker	1	2	3
g. As part of the leading crowd	1	2	3

31. Have you ever had the following experience?

(Circle One On Each Line)

	Yes	No
a. Taken music lessons?	1	2
b. Traveled outside of this state?	1	2
c. Taken dance lessons?	1	2
d. Visited a museum?	1	2
e. Taken an ability test outside of school?	1	2
f. Traveled outside of the U.S.?	1	2
g. Been to a professional ball game?	1	2
h. Been to a rock concert?	1	2

32. How do you feel about each of the following statements?

(Circle One On Each Line)

	Agree strongly	Agree	Disagree	Disagree strongly	No opinion
a. I take a positive attitude toward myself	1	2	3	4	5
b. Good luck is more important than hard work for success	1	2	3	4	5
c. I feel I am a person of worth, on an equal plane with others	1	2	3	4	5
d. I am able to do things as well as most other people	1	2	3	4	5
e. Every time I try to get ahead, something or somebody stops me	1	2	3	4	5
f. Planning only makes a person unhappy, since plans hardly ever work out anyway	1	2	3	4	5
g. People who accept their condition in life are happier than those who try to change things	1	2	3	4	5
h. On the whole, I am satisfied with myself	1	2	3	4	5
i. What happens to me is my own doing	1	2	3	4	5
j. At times I think I am no good at all	1	2	3	4	5
k. When I make plans, I am almost certain I can make them work	1	2	3	4	5
l. I feel I do not have much to be proud of	1	2	3	4	5

33. Are the following statements about your experience in school true or false?

(Circle One On Each Line)

	True	False
a. I am satisfied with the way my education is going	1	2
b. I have had disciplinary problems in school during the last year	1	2
c. I am interested in school	1	2
d. I have been suspended or put on probation in school	1	2
e. Every once in a while I cut a class	1	2
f. I don't feel safe at this school	1	2

34. As things stand now, how far in school do you think you will get?

(Circle One)

Less than high school graduation 01

High school graduation only 02

Vocational, trade, or business school after high school .... {Less than two years 03
{Two years or more 04

College program ....{Less than two years of college 05
{Two or more years of college (including two year degree) 06
{Finished college (four- or five-year degree) 07
{Master's degree or equivalent 08
{Ph.D, M.D., or other advanced degree 09

35. Did you expect to go to college when you were in the following grades?

(Circle One On Each Line)

When you were . . .

	Yes	No	Was not sure	Hadn't thought about it
a. In the 6th grade	1	2	3	4
b. In the 7th grade	1	2	3	4
c. In the 8th grade	1	2	3	4
d. In the 9th grade	1	2	3	4

36. Age:

(Circle One)

13 or younger 14 15 16 17 18 19 20 21 or older

37. Do you have any of the following conditions?

(Circle All That Apply)

a. Specific learning disability	1
b. Visual handicap	1
c. Hard of hearing	1
d. Deafness	1
e. Speech disability	1
f. Orthopedic handicap	1
g. Other health impairment	1

38. Do you feel that you have a physical condition that limits the kind or amount of work you can do on a job, or affects your chances for more education?

(Circle One)

No	1
Yes	2

39. We would like to ask you about the area of the world your ancestors lived in BEFORE coming to America. What do you consider your background? If your ancestors came from more than one area, please circle below the one area you consider the most important part of your background.

(Circle One)

HISPANIC OR SPANISH	
Mexican	01
Cuban	02
Puerto Rican	03
Other Hispanic (Write In)	04
ASIAN OR PACIFIC ISLANDER	
Chinese	05
Filipino	06
Japanese	07
Korean	08
Southeast Asian (Vietnamese, Laotian, Cambodian/Kampuchean, etc.)	09
Pacific Islander	10
Other Asian	11
NEITHER HISPANIC NOR ASIAN OR PACIFIC ISLANDER	12

40. Did anyone at home read to you when you were young before you started school?

(Circle One)

Never	01
Less than once a month	02
One to four times a month	03
Several times a week	04
Every day	05
Don't remember	06

41. How many brothers and sisters do you have in the age groups below? Please include step-brothers and step-sisters if they live, or have lived, in your home.

(Circle One On Each Line)

How many brothers and sisters do you have who are. . .	None	One	Two	Three	Four	Five or more
a. Three or more years older than you	01	02	03	04	05	06
b. 1-2 years older	01	02	03	04	05	06
c. Same age as you	01	02	03	04	05	06
d. 1-2 years younger	01	02	03	04	05	06
e. Three or more years younger	01	02	03	04	05	06

42. Does your family own or rent the house or apartment in which you now live?

(Circle One)

Own	1
Rent	2
Other arrangement	3

43. How many rooms are there in your home? Count only the rooms your family lives in. Count the kitchen (if separate) but not bathrooms.

(Circle One)

One	01
Two	02
Three	03
Four	04
Five	05
Six	06
Seven	07
Eight	08
Nine	09
Ten or more	10

44. Which of the following do you have in your home?

(Circle One On Each Line)

	Have	Do not have
a. A specific place for study	1	2
b. A daily newspaper	1	2
c. Encyclopedia or other reference books	1	2
d. Typewriter	1	2
e. Electric dishwasher	1	2
f. Two or more cars or trucks that run	1	2
g. More than 50 books	1	2
h. A room of your own	1	2
i. Pocket calculator	1	2

45. When you were in the first, sixth, and ninth grades, about how many of the students in your class were Black?

(Circle One On Each Line)

	None	Few	About half	Most	All
a. In my first grade	1	2	3	4	5
b. In my sixth grade	1	2	3	4	5
c. In my ninth grade	1	2	3	4	5

46. When you were in the first, sixth, and ninth grades, about how many of the students in your class were Hispanic (Mexican, Cuban, Puerto Rican, Latino, or other Spanish descent)?

(Circle One On Each Line)

	None	Few	About half	Most	All
a. In my first grade	1	2	3	4	5
b. In my sixth grade	1	2	3	4	5
c. In my ninth grade	1	2	3	4	5

47. When you were in the first, sixth, and ninth grades, about how many of the students in your class were Asian/Pacific Islander?

(Circle One On Each Line)

	None	Few	About half	Most	All
a. In my first grade	1	2	3	4	5
b. In my sixth grade	1	2	3	4	5
c. In my ninth grade	1	2	3	4	5

48. Do you plan to go to college at some time in the near future?

	(Circle One)
Yes, right after high school	1
Yes, after staying out one year	2
Yes, after a longer period out of school	3
Don't know	4
No	5

Item 4

Twelfth Grade Questionnaire

Form Approved
O.M.B. No. 1850-0593
App. Exp.: 6/30/1987

TWELFTH GRADE QUESTIONNAIRE

NELS:88
NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988
FIELD TEST

Prepared for: U.S. Department of Education
Center for Education Statistics

By: NORC, A Social Science Research Center
University of Chicago

As a matter of policy, the Center for Statistics is concerned with protecting the privacy of individuals who participate in voluntary surveys. We want to let you know that:

1. Section 406 of the General Education Provisions Act (20-USC 1221e-1) allows us to ask you the questions in this questionnaire.
2. You may skip any questions you do not wish to answer.
3. We are asking you these questions in order to gather information about what happens to students as they move out of high school and make decisions about postsecondary education and work.
4. Your responses will be merged with those of other students, and the answers you give will never be identified as yours.

GENERAL INSTRUCTIONS

PLEASE READ EACH QUESTION CAREFULLY

It is important that you follow the directions for responding to each kind of question. These are:

(CIRCLE ONE)

What is the color of your eyes?

(CIRCLE ONE)

Brown 1
Blue 2
Green .... [✓ 3]
Another Color 4

If the color of your eyes is green, you would circle the three as shown.

(CIRCLE ALL THAT APPLY)

Last week, did you do any of the following?

(CIRCLE ALL THAT APPLY)

a. See a play 1
b. Go to a movie .... [✓ 2]
c. Attend a sporting event .... [✓ 3]

If you went to a movie and attended a sporting event last week, you would circle two items as shown.

(CIRCLE ONE ON EACH LINE)

Do you plan to do any of the following next week?

(CIRCLE ONE ONE EACH LINE)

	Yes	Not Sure	No
a. Visit a relative	1	2	[✓ 3]
b. Go to a museum	1	[✓ 2]	3
c. Study at a friend's house	[✓ 1]	2	3

If you plan to study at a friend's house, do not plan to visit a relative, and are not sure about going to a museum next week, you would circle one on each line as shown.

This questionnaire is not a test. We hope you will answer every question, but you may skip any question you do not wish to answer.

WE HOPE YOU WILL ANSWER EVERY QUESTION, BUT YOU MAY SKIP ANY QUESTION YOU DO NOT WISH TO ANSWER.

1. When do you expect to graduate from high school?

(CIRCLE ONE)

I will leave high school before I graduate 01

Now through June 1987 02

July or August 1987 03

September 1987 through January 1988 04

February through June 1988 05

After June 1988 06

2. Which of the following best describes your present high school program?

(CIRCLE ONE)

General 01

Academic or college preparatory 02

Vocational (Occupational preparation)
  Agricultural occupations 03

  Business or office occupations 04

  Distributive education 05

  Health occupations 06

  Home economics occupations 07

  Technical occupations 08

  Trade or industrial occupations 09

3. How often has each of the following been used in the courses you are taking this year?

(CIRCLE ONE ON EACH LINE)

	Never	Seldom	Fairly often	Frequently
a. Listening to the teachers lecture	1	2	3	4
b. Participating in student-centered discussions	1	2	3	4
c. Working on a project or in a laboratory	1	2	3	4
d. Writing essays, themes, poetry, or stories	1	2	3	4
e. Having individualized instruction (small groups or one-to-one with a teacher)	1	2	3	4
f. Using teaching machines or computer-assisted instructions	1	2	3	4

4. Starting with the beginning of the tenth grade and through the end of this school year how much course work will you have taken in each of the following subjects?

Count only courses that meet at least three times (or three periods) a week.

(CIRCLE ONE ON EACH LINE)

	None	1/2 year	1 year	1 1/2 years	2 years	2 1/2 years	3 years	More than 3 years
a. Mathematics	01	02	03	04	05	06	07	08
b. English or literature	01	02	03	04	05	06	07	08
c. French	01	02	03	04	05	06	07	08
d. German	01	02	03	04	05	06	07	08
e. Spanish	01	02	03	04	05	06	07	08
f. History or social studies	01	02	03	04	05	06	07	08
g. Science	01	02	03	04	05	06	07	08
h. Business, office, or sales	01	02	03	04	05	06	07	08
i. Trade and industry	01	02	03	04	05	06	07	08
j. Technical courses	01	02	03	04	05	06	07	08
k. Other vocational courses	01	02	03	04	05	06	07	08

5. Which of the following courses have you taken, counting the courses you are taking this semester?

(CIRCLE ONE ON EACH LINE)

	Yes, have taken	No, have not taken
a. First-year algebra	1	2
b. Second-year algebra	1	2
c. Geometry	1	2
d. Trigonometry	1	2
e. Calculus	1	2
f. Physics	1	2
g. Chemistry	1	2

6. Which of the following best describes your grades so far in high school?

(CIRCLE ONE)

Mostly A (a numerical average of 90-100)	01
About half A and half B (85-89)	02
Mostly B (80-84)	03
About half B and half C (75-79)	04
Mostly C (70-74)	05
About half C and half D (65-69)	06
Mostly D (60-64)	07
Mostly below D (below 60)	08

7. Circle all the statements that apply for each of the subjects listed below.

(CIRCLE ALL THAT APPLY)

A. Mathematics

a. I got mostly A's and B's in this subject ... 1
b. It will be useful in my future 1
c. It was interesting to me 1
d. Took no mathematics courses 1

B. English or literature

a. I got mostly A's and B's in this subject ... 1
b. It will be useful in my future 1
c. It was interesting to me 1
d. Took no English or literature courses 1

C. Business, office, or sales

a. I got mostly A's and B's in this subject ... 1
b. It will be useful in my future 1
c. It was interesting to me 1
d. Took no business courses 1

D. Trade or industry

a. I got mostly A's and B's in this subject ... 1
b. It will be useful in my future 1
c. It was interesting to me 1
d. Took no trade or industrial courses......... 1

8. Have you ever been in any of the following kinds of courses or programs?

(CIRCLE ONE ON EACH LINE)

		Yes	No
a.	Remedial English (sometimes called basic or essential)	1	2
b.	Remedial Mathematics (sometimes called basic or essential)	1	2
c.	Advanced or honors program in English	1	2
d.	Advanced or honors program in Mathematics	1	2
e.	Bilingual or bicultural program	1	2
f.	Family life or sex education	1	2
g.	Alcohol or drug abuse education	1	2
h.	Special program for the educationally handicapped	1	2
i.	Special program for the physically handicapped	1	2

9. Approximately what is the average amount of time you spend on homework a week?

(CIRCLE ONE)

No homework is ever assigned	01
I have homework, but I don't do it	02
Less than 1 hour a week	03
Between 1 and 3 hours a week	04
More than 3 hours, less than 5 hours a week	05
Between 5 and 10 hours a week	06
More than 10 hours a week	07

10. Between the beginning of school last fall and Christmas vacation, about how many days were you absent from school for any reason, not counting illness?

(CIRCLE ONE)

None	01
1 or 2 days	02
3 or 4 days	03
5 to 10 days	04
11 to 15 days	05
16 to 20 days	06
21 or more	07

11. Between the beginning of school last fall and Christmas vacation, about how many days were you late to school?

(CIRCLE ONE)

None	01
1 or 2 days	02
3 or 4 days	03
5 to 10 days	04
11 to 15 days	05
16 to 20 days	06
21 or more	07

12. How old were you when you first worked for pay, not counting work around the house?

(CIRCLE ONE)

11 or younger	01
12	02
13	03
14	04
15	05
16	06
17	07
18	08
19	09
20 or older	10
Never have worked for pay	11

13. Did you do any work for pay last week, not counting work around the house?

(CIRCLE ONE)

Yes	1
No	2

14. Were you looking for a job last week?

(CIRCLE ONE)

Yes	1
No	2

15. When was the most recent time you worked for pay, not counting work around the house?

(CIRCLE ONE)

Never worked for pay 01

Last week 02

Within the past month, not last week 03

Within the past 3 months 04

Since school started last fall 05

Last summer 06

Before that 07

16. How many hours do/did you work a week on your current or most recent job?

(CIRCLE ONE)

None, never worked for pay 01

1-4 hours per week 02

5-14 hours per week 03

15-21 hours per week 04

22-29 hours per week 05

30-34 hours per week 06

35 hours or more per week 07

17. Which of the job categories below comes closest to the kind of work you do/did for pay on your current or most recent job? (If more than one kind of work, choose the one which paid you the most per week.)

(CIRCLE ONE)

Have not worked for pay 01

Lawn work or odd jobs 02
Waiter or waitress in a restaurant or drive-in 03
Babysitting or child care 04
Farm or agricultural work 05
Factory work, unskilled or semi-skilled 06
Skilled trade 07
Other manual labor 08
Store clerk or salesperson 09
Office or clerical 10
Hospital or health 11
Other 12

18. Have you participated in any of the following types of activities either in or out of school this year?

(CIRCLE ONE ON EACH LINE)

	Have not participated	Have participated actively (but not as a leader or officer)	Have participated as a leader or officer
a. Varsity athletic teams	1	2	3
b. Other athletic teams - in or out of school	1	2	3
c. Cheer leaders, pep club, majorettes	1	2	3
d. Debating or drama	1	2	3
e. Band or orchestra	1	2	3
f. Chorus or dance	1	2	3
g. Hobby clubs such as photography, model building, hot rod, electronics, crafts	1	2	3
h. Honorary clubs, such as Beta Club or National Honor Society	1	2	3
i. School newspaper, magazine, yearbook, annual	1	2	3
j. School subject-matter clubs, such as science, history, language, business, art	1	2	3

Continued, next page

(CIRCLE ONE ON EACH LINE)

	Have not participated	Have participated actively (but not as a leader or officer)	Have participated as a leader or officer
k. Student council, student government, political club	1	2	3
l. Vocational education clubs, such as Future Homemakers, Teachers, Farmers of America, DECA, FBLA, or VICA	1	2	3
m. Youth organizations in the community, such as Scouts, Y, etc.	1	2	3
n. Church activities, including youth groups	1	2	3
o. Junior Achievement	1	2	3

19. Please describe below the job most recently held by your father (stepfather or male guardian), even if he is not working at present.

(WRITE IN)____

Which of the categories below comes closest to describing that job?

(CIRCLE ONE)

Do not live with father (stepfather or male guardian)	01
CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent	02
CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter	03
FARMER, FARM MANAGER	04
HOMEMAKER OR HOUSEWIFE ONLY	05
LABORER such as construction worker, car washer, sanitary worker, farm laborer	06
MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official	07
MILITARY such as career officer, enlisted man or woman in the Armed Forces	08

Continued, next page

OPERATIVE such as meat cutter, assembler, machine operator, welder, taxicab, bus, or truck driver	09
PROFESSIONAL such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician, but not including school teacher	10
PROFESSIONAL such as clergyman, dentist, physician, lawyer, scientist, college teacher	11
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner	12
PROTECTIVE SERVICE such as detective, police officer or guard, sheriff, fire fighter	13
SALES such as salesperson, advertising or insurance agent, real estate broker	14
SCHOOL TEACHER such as elementary or secondary	15
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter	16
TECHNICAL such as draftsman, medical or dental technician, computer programmer	17
Never worked	18
Don't know	19

20. Please describe below the job most recently held by your mother (stepmother or female guardian), even if she is not working at present.

(WRITE IN)____

Which of the categories below comes closest to describing that job?

(CIRCLE ONE)

Do not live with mother (stepmother or female guardian) 01

CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent 02

CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter 03

FARMER, FARM MANAGER 04

HOMEMAKER OR HOUSEWIFE ONLY 05

LABORER such as construction worker, car washer, sanitary worker, farm laborer 06

MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official 07

MILITARY such as career officer, enlisted man or woman in the Armed Forces 08

Continued, next page

OPERATIVE such as meat cutter, assembler, machine operator, welder, taxicab, bus, or truck driver	09
PROFESSIONAL such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician, but not including school teacher	10
PROFESSIONAL such as clergyman, dentist, physician, lawyer, scientist, college teacher	11
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner	12
PROTECTIVE SERVICE such as detective, police officer or guard, sheriff, fire fighter	13
SALES such as salesperson, advertising or insurance agent, real estate broker	14
SCHOOL TEACHER such as elementary or secondary	15
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter	16
TECHNICAL such as draftsman, medical or dental technician, computer programmer	17
Never worked	18
Don't know	19

21. What was the highest level of education your father (stepfather or male guardian) completed?

(CIRCLE ONE)

Do not live with father (stepfather or male guardian)		01
Less than high school graduation		02
High school graduation only		03
Vocational, trade, or business school after high school	Less than two years	04
	Two years or more	05
College program	Less than two years of college	06
	Two or more years of college (including two year degree)	07
	Finished college (four- or five-year degree)	08
	Master's degree or equivalent	09
	Ph.D, M.D., or other advanced degree	10
Don't know		11

22. How much of his life has your father (stepfather or male guardian) spent in the United States?

(CIRCLE ONE)

All or almost all	01
More than 20 years, but not all	02
About 11-20 years	03
About 6-10 years	04
About 1-5 years	05
Don't know	08

23. What was the highest level of education your mother (stepmother or female guardian) completed?

(CIRCLE ONE)

Do not live with mother (stepmother or female guardian)		01
Less than high school graduation		02
High school graduation only		03
Vocational, trade, or business school after high school	Less than two years	04
	Two years or more	05
College program	Less than two years of college	06
	Two or more years of college (including two year degree)	07
	Finished college (four- or five-year degree)	08
	Master's degree or equivalent	09
	Ph.D, M.D., or other advanced degree	10
Don't know		11

24. How much of her life has your mother (stepmother or female guardian) spent in the United States?

(CIRCLE ONE)

All or almost all	01
More than 20 years, but not all	02
About 11-20 years	03
About 6-10 years	04
About 1-5 years	05
Don't know	06

25. Were you born in the United States?

(CIRCLE ONE)

Yes	1
No	2

26. How much of your life have you spent in the United States?

(CIRCLE ONE)

All or almost all	1
More than 10 years, but not all	2
About 6-10 years	3
About 1-5 years	4

27. Are the following statements about your parents true or false?

(CIRCLE ONE ON EACH LINE)

	True	False	Does Not Apply
a. My mother (stepmother or female guardian) keeps close track of how well I am doing in school	1	2	3
b. My father (stepfather or male guardian) keeps close track of how well I am doing in school	1	2	3
c. My parents (or guardians) almost always know where I am and what I'm doing	1	2	3

28. During weekdays about how many hours per day do you watch TV?

(CIRCLE ONE)

Don't watch TV during week	01
Less than 1 hour	02
1 hour or more, less than 2	03
2 hours or more, less than 3	04
3 hours or more, less than 4	05
4 hours or more, less than 5	06
5 or more	07

29. How much has each of the following persons influenced your plans for after high school?

(CIRCLE ONE ON EACH LINE)

	Not At All	Somewhat	A Great Deal
a. Your father	1	2	3
b. Your mother	1	2	3
c. A guidance counselor	1	2	3
d. Teachers	1	2	3
e. Friends or relatives about your own age	1	2	3
f. Military recruiters	1	2	3
g. College recruiters	1	2	3

30. How do you feel about each of the following statements?

(CIRCLE ONE ON EACH LINE)

	Agree strongly	Agree	Disagree	Disagree strongly	No opinion
a. I take a positive attitude toward myself	1	2	3	4	5
b. Good luck is more important than hard work for success	1	2	3	4	5
c. I feel I am a person of worth, on an equal plane with others	1	2	3	4	5
d. I am able to do things as well as most other people	1	2	3	4	5
e. Every time I try to get ahead, something or somebody stops me	1	2	3	4	5
f. Planning only makes a person unhappy, since plans hardly ever work out anyway	1	2	3	4	5
g. People who accept their condition in life are happier than those who try to change things	1	2	3	4	5
h. On the whole, I am satisfied with myself	1	2	3	4	5
i. What happens to me is my own doing	1	2	3	4	5
j. At times I think I am no good at all	1	2	3	4	5

Continued, next page

(CIRCLE ONE ON EACH LINE)

	Agree strongly	Agree	Disagree	Disagree strongly	No opinion
k. When I make plans, I am almost certain I can make them work	1	2	3	4	5
l. I feel I do not have much to be proud of	1	2	3	4	5

31. Are the following statements about your experience in school true or false?

(CIRCLE ONE ON EACH LINE)

	True	False
a. I am satisfied with the way my education is going	1	2
b. I have had disciplinary problems in school during the last year	1	2
c. I am interested in school	1	2
d. I have been suspended or put on probation in school	1	2
e. Every once in a while I cut a class	1	2
f. I don't feel safe at this school	1	2

32. Write in here the name of the job or occupation that you expect or plan to have when you are 30 years old. Even if you are not at all sure, write in your best guess.

(WRITE IN)____

Which of the categories below comes closest to describing that job?

(CIRCLE ONE)

CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent	01
CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter	02
FARMER, FARM MANAGER	03
HOMEMAKER OR HOUSEWIFE ONLY	04
LABORER such as construction worker, car washer, sanitary worker, farm laborer	05
MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official	06
MILITARY such as career officer, enlisted man or woman in the Armed Forces	07

Continued, next page

OPERATIVE such as meat cutter, assembler, machine operator, welder, taxicab, bus, or truck driver	08
PROFESSIONAL such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician, but not including school teacher	09
PROFESSIONAL such as clergyman, dentist, physician, lawyer, scientist, college teacher	10
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner	11
PROTECTIVE SERVICE such as detective, police officer or guard, sheriff, fire fighter	12
SALES such as salesperson, advertising or insurance agent, real estate broker	13
SCHOOL TEACHER such as elementary or secondary	14
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter	15
TECHNICAL such as draftsman, medical or dental technician, computer programmer	16
NOT WORKING	17

33. As things stand now, how far in school do you think you will get?

(CIRCLE ONE)

Less than high school graduation 01

High school graduation only 02

Vocational, trade, {Less than two years 03
or business school ....{
after high school {Two years or more 04

{Less than two years of college 05
{
{Two or more years of college
(including two year degree) 06
{
College program ....{Finish college
(four- or five-year degree) 07
{
{Master's degree or equivalent 08
{
{Ph.D, M.D., or other advanced degree 09

34. What is the lowest level of education you would be satisfied with?

(CIRCLE ONE)

Less than high school graduation 01

High school graduation only 02

Vocational, trade, {Less than two years 03
or business school ....{
after high school {Two years or more 04

{Less than two years of college 05
{
{Two or more years of college
(including two year degree) 06
{
College program ....{Finished college
(four- or five-year degree) 07
{
{Master's degree or equivalent 08
{
{Ph.D, M.D., or other advanced degree 09

35. Did you expect to go to college when you were in the following grades?

(CIRCLE ONE ON EACH LINE)

When you were . . .

	Yes	No	Was not sure	Hadn't thought about it
a. In the 8th grade	1	2	3	4
b. In the 9th grade	1	2	3	4
c. In the 10th grade	1	2	3	4
d. In the 11th grade	1	2	3	4

36. What is the one thing that most likely will take the largest share of your time in the year after you leave high school?

(CIRCLE ONE)

Working full time	01
Entering an apprenticeship or on-the-job training program	02
Going into regular military service (or service academy)	03
Being a full-time homemaker	04
Taking vocational or technical courses at a trade or business school full time or part time	05
Taking academic courses at a junior or community college full time or part time	06
Taking technical or vocational subjects at a junior or community college full time or part time	07
Attending a four-year college or university full time or part time	08
Working part time, but not attending school or college	09
Other (travel, take a break, no plans)	10

37. About how much money do you expect to earn from work in the year beginning July 1987 and ending June 1988?

(CIRCLE ONE)

None	01
Less than $1,000	02
$1,000-$2,999	03
$3,000-$4,999	04
$5,000-$6,999	05
$7,000-$8,999	06
$9,000-$10,999	07
$11,000-$12,999	08
$13,000-$14,999	09
$15,000 or more	10

38. Age:

(CIRCLE ONE)

15 or younger 16 17 18 19 20 21 or older

39. Do you have any of the following conditions?

(CIRCLE ALL THAT APPLY)

a. Specific learning disability	1
b. Visual handicap	1
c. Hard of hearing	1
d. Deafness	1
e. Speech disability	1
f. Orthopedic handicap	1
g. Other health impairment	1

40. We would like to ask you about the area of the world your ancestors lived in BEFORE coming to America. What do you consider your background? If your ancestors came from more than one area, please circle below the one area you consider the most important part of your background.

(CIRCLE ONE)

HISPANIC OR SPANISH	
Mexican	01
Cuban	02
Puerto Rican	03
Other Hispanic (Write In)	04
ASIAN OR PACIFIC ISLANDER	
Chinese	05
Filipino	06
Japanese	07
Korean	08
Southeast Asian (Vietnamese, Laotian, Cambodian/Kampuchean, etc.)	09
Pacific Islander	10
Other Asian	11
NEITHER HISPANIC NOR ASIAN OR PACIFIC ISLANDER	12

41. Did anyone at home read to you when you were young before you started school?

(CIRCLE ONE)

Never	01
Less than once a month	02
One to four times a month	03
Several times a week	04
Every day	05
Don't remember	06

42. How many brothers and sisters do you have in the age groups below? Please include step-brothers and step-sisters if they live, or have lived, in your home.

(CIRCLE ONE ON EACH LINE)

How many brothers and sisters do you have who are. . .	None	One	Two	Three	Four	Five or more
a. Three or more years older than you	01	02	03	04	05	06
b. 1-2 years older	01	02	03	04	05	06
c. Same age as you	01	02	03	04	05	06
d. 1-2 years younger	01	02	03	04	05	06
e. Three or more years younger	01	02	03	04	05	06

43. Which of the following do you have in your home?

(CIRCLE ONE ON EACH LINE)

	Have	Do not have
a. A specific place to study	1	2
b. A daily newspaper	1	2
c. Encyclopedia or other reference books	1	2
d. Typewriter	1	2
e. Electric dishwasher	1	2
f. Two or more cars or trucks that run	1	2
g. More than 50 books	1	2
h. A room of your own	1	2
i. Pocket calculator	1	2

44. When you were in the first, sixth, and ninth grades, about how many of the students in your class were Black?

(CIRCLE ONE ON EACH LINE)

	None	Few	About half	Most	All
a. In my first grade	1	2	3	4	5
b. In my sixth grade	1	2	3	4	5
c. In my ninth grade	1	2	3	4	5

45. When you were in the first, sixth, and ninth grades, about how many of the students in your class were Hispanic (Mexican, Cuban, Puerto Rican, Latino, or other Spanish descent)?

(CIRCLE ONE ON EACH LINE)

	None	Few	About half	Most	All
a. In my first grade	1	2	3	4	5
b. In my sixth grade	1	2	3	4	5
c. In my ninth grade	1	2	3	4	5

46. When you were in the first, sixth, and ninth grades, about how many of the students in your class were Asian/Pacific Islander?

(CIRCLE ONE ON EACH LINE)

	None	Few	About half	Most	All
a. In my first grade	1	2	3	4	5
b. In my sixth grade	1	2	3	4	5
c. In my ninth grade	1	2	3	4	5

47. Do you plan to go to college at some time in the near future?

(CIRCLE ONE)

Yes, next year	1
Yes, after staying out one year	2
Yes, after a longer period out of school	3
Don't know	4
No	5

Item 5

Parent Questionnaire

NORC-4456
Form Approved
O.M.B. No. 1850-0593
App. Exp.: 6/30/1987

PARENT QUESTIONNAIRE

NELS:88
NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988
FIELD TEST

Prepared for: U.S. Department of Education
Center for Education Statistics

By: NORC, A Social Science Research Center
University of Chicago

BEGIN DECK 01

01-07/

08/

As a matter of policy, the Center for Statistics is concerned with protecting the privacy of individuals who participate in voluntary surveys. We want to let you know that:

1. Section 406 of the General Education Provisions Act (20-USC 1221e-1) allows us to ask you the questions in this questionnaire.
2. You may skip any questions you do not wish to answer.
3. We are asking you these questions in order to gather information about what happens to students as they move out of high school and make decisions about postsecondary education and work.
4. Your responses will be merged with those of others, and the answers you give will never be identified as yours.

On the cover of this questionnaire you will find the name of an eighth grader. Please check the cover to insure that the child named on the cover is one for which you or your spouse or partner are responsible. The questionnaire should be completed by the parent or guardian who is most familiar with the student's current school situation and educational plans. If you are the appropriate person, please fill out the questionnaire and return it in the postage paid envelope provided. If neither you nor your spouse or partner are the appropriate person, please call Lee Talbert collect at (312) 702-8998, to discuss the best way to get the questionnaire to the appropriate person, so that they may respond.

GENERAL INSTRUCTIONS

PLEASE READ EACH QUESTION CAREFULLY

It is important that you follow the directions for responding to each kind of question. These are:

(CIRCLE ONE)

What is the color of your eyes?

	(CIRCLE ONE)
Brown	1
Blue	2
Green	[✓ 3]
Another Color	4

If the color of your eyes is green, you would circle the three as shown.

(CIRCLE ALL THAT APPLY)

Last week, did you do any of the following?

	(CIRCLE ALL THAT APPLY)
a. See a play	1
b. Go to a movie	[✓ 2]
c. Attend a sporting event	[✓ 3]

If you went to a movie and attended a sporting event last week, you would circle two items as shown.

(CIRCLE ONE ON EACH LINE)

Do you plan to do any of the following next week?

(CIRCLE ONE ON EACH LINE)

	Yes	Not Sure	No
a. Visit a relative	1	2	[✓ 3]
b. Go to a museum	1	[✓ 2]	3
c. Work at a part-time job	[✓ 1]	2	3

If you plan to work at a part-time job, do not plan to visit a relative, and are not sure about going to a museum next week, you would circle one on each line as shown.

This questionnaire is not a test. We hope you will answer every question, but you may skip any question you do not wish to answer.

NELS 88: FIELD TEST PARENT QUESTIONNAIRE

PART-1 YOUR FAMILY'S BACKGROUND

1. What is your relationship to the student named on the front cover?
*

A. **(CIRCLE ONE)**
*

Mother	01	09-10/
Stepmother	02	
Father	03	
Stepfather	04	
Grandmother	05	
Grandfather	06	
Other male relative or guardian	07	
Other female relative or guardian	08	

B. Does the child named on the cover live with you?
*

(CIRCLE ONE)

All of the time	1	11/
More than half of the time	2	
Less than half of the time	3	
None of the time	4	

2. Altogether, how many people are dependent upon you (or you and your spouse/partner)? Count everyone (include individuals not living with you and your spouse/partner) who receives one-half or more of their financial support from you or your spouse/partner, but do not include yourself or your spouse/partner.

Total number of dependents: |____|____| 12-13/

(Not counting you or your husband/wife)

3. We would like to know how many brothers and sisters your eighth grade student has. Please include stepchildren if they live in your home.

(CIRCLE ONE)

None 0 14/

One 1

Two 2

Three 3

Four 4

Five 5

Six or more 6

4. How many of the children referred to in question 3 are older than your eighth grader? Please include stepchildren if they live or have lived in your home.

(CIRCLE ONE)

None 0 15/

One 1

Two 2

Three 3

Four 4

Five 5

Six or more 6

5. How many of your children referred to in Question 3:

A. Are now in high school?

How many? |____|____| 16-17/

B. And how many are now beyond high school (in college, university, or vocational, trade, or business school)?

How many? |____|____| 18-19/

6. Have any of your children dropped out of school before graduating from high school?

(CIRCLE ONE)

Yes .... 1 --> **GO TO** Question 6A 20/

No .... 2 --> **SKIP TO** Question 7

A. If yes, How many? |___|___| 21-22/

7. What is your sex?

(CIRCLE ONE)

Male 1 23/

Female 2

8. In what year were you born?

Year: |1|9|_|_|
24-25/

A. Are you currently married?

(CIRCLE ONE)

Yes .... 1 --> **GO TO** Question 8B 26/

No .... 2 --> **SKIP TO** Question 9, next page

B. In what year was your husband/wife born?

Year: |1|9|_|_|
27-28/

9. What is your origin or descent? If more than one, please circle below the one
* you consider the most important part of your background.

	(CIRCLE ONE)	
HISPANIC OR SPANISH		
Mexican	01	29-30/
Cuban	02	
Puerto Rican	03	
Other Hispanic (**WRITE IN**) ____________________	04	
ASIAN OR PACIFIC ISLANDER		
Chinese	05	
Filipino	06	
Japanese	07	
Korean	08	
Southeast Asian (Vietnamese, Laotian, Cambodian/Kampuchean, etc.)	09	
Pacific Islander	10	
Other Asian (**WRITE IN**) ____________________	11	
NEITHER HISPANIC NOR ASIAN OR PACIFIC ISLANDER	12	

10. What is your race?
*

(CIRCLE ONE)

Black 1 31/

White 2

American Indian or Alaskan Native 3

Asian or Pacific Islander 4

Other 5

11. Was the child's mother born in the United States (that is any of the fifty states or the District of Columbia), Puerto Rico, or another country or area?

(CIRCLE ONE)

She was born in the United States......... 1 --> **SKIP TO** Question 14 32/

She was born in Puerto Rico............... 2 --> **GO TO** Question 12

She was born in another country/area...... 3 --> **GO TO** Question 12

12. In what year did she come to the United States to stay?

Year: |1|9|_|_|
33-34/

13. What kind of work did the child's mother do most recently before coming to the United States?

OCCUPATION:____ 35-54/

14. Was the child's father born in the United States (that is any of the fifty states or the District of Columbia), Puerto Rico, or another country or area?

(CIRCLE ONE)

He was born in the United States....... 1 --> **SKIP TO** Question 17, next page 55/

He was born in Puerto Rico............ 2 --> **GO TO** Question 15, next page

He was born in another country/area.... 3 --> **GO TO** Question 15, next page

15. In what year did he come to the United States to stay?

Year: |1|9|_|_|
56-57/

16. What was the kind of work the child's father did most recently before coming to the United States?

BEGIN DECK 02

OCCUPATION ______________________________ 08-27/

17. Was your child born in the United States (that is any of the fifty states or the District of Columbia), Puerto Rico, or another country or area?

(CIRCLE ONE)

He/she was born in the United States... 1 --> **SKIP TO** Question 22, next page 28/

He/she was born in Puerto Rico......... 2 --> **GO TO** Question 18

He/she was born in another country/area 3 --> **GO TO** Question 18

18. In what year did your child come to the United States to stay?

Year: |1|9|_|_|
29-30/

19. Did your child attend school outside the United States?

(CIRCLE ONE)

Yes .... 1 --> **GO TO** Question 20, next page 31/

No .... 2 --> **SKIP TO** Question 22, next page

20. What grade/s did your child complete outside the United States?

(CIRCLE ALL THAT APPLY)

a. Kindergarten.......	1	32/	f. Fifth grade.......	1	37/
b. First grade........	1	33/	g. Sixth grade.......	1	38/
c. Second grade.......	1	34/	h. Seventh grade.....	1	39/
d. Third grade........	1	35/	i. Eighth grade......	1	40/
e. Fourth grade.......	1	36/			

-- OR --

j. My child has not completed any
grade/s outside of the United States.................. 0   41/

21. What grade was your child assigned to when he/she started school in the United States?

(CIRCLE ONE)

First grade.......	01	Fifth grade.......	05	42-43/
Second grade......	02	Sixth grade......	06	
Third grade.......	03	Seventh grade.....	07	
Fourth grade......	04	Eighth grade......	08	

22. Do you speak a language other than English?

(CIRCLE ONE)

Yes.................. 1 --> **GO TO** Question 23, next page   44/

No................... 2 --> **SKIP TO** Question 30, page 13

23. What language, other than English, do you currently use most often?

(CIRCLE ONE)

Spanish	02	45-46/
Italian	03	
Chinese	04	
French	05	
German	06	
Japanese	07	
Korean	08	
Portuguese	09	
Any Filipino language	10	
Other **(WRITE IN BELOW)**	11	

____

24. With regard to the language that you answered in question 23, how well do
* you do the following? (Please answer questions 24 and 25 with regard to that language.)

(CIRCLE ONE ON EACH LINE)

How well do you...

	Very Well	Pretty Well	Well	Not Very Well	Not at All Well	
a. Understand that language when people speak it	1	2	3	4	5	47/
b. Speak that language	1	2	3	4	5	48/
c. Read that language	1	2	3	4	5	49/
d. Write that language	1	2	3	4	5	50/

25. How well do you do the following?
*

(CIRCLE ONE ON EACH LINE)

How well do you...	Very Well	Pretty Well	Well	Not Very Well	Not at All Well	
a. Understand spoken English	1	2	3	4	5	51/
b. Speak English	1	2	3	4	5	52/
c. Read English	1	2	3	4	5	53/
d. Write English	1	2	3	4	5	54/

26. What language do the people in your home usually speak?
*

(CIRCLE ONE)

English	01	55-56/
Spanish	02	
Italian	03	
Chinese	04	
French	05	
German	06	
Japanese	07	
Korean	08	
Portuguese	09	
Any Filipino language	10	
Other: (WRITE IN) ______________________	11	

27. What language do you usually speak to your child in your home?
*

(CIRCLE ONE)

English 01 57-58/

Spanish 02

Italian 03

Chinese 04

French 05

German 06

Japanese 07

Korean 08

Portuguese 09

Any Filipino language.................. 10

Other: (WRITE IN) ______________________ 11

28. What language does your child usually speak to you in your home?

(CIRCLE ONE)

English	01	59-60/
Spanish	02	
Italian	03	
Chinese	04	
French	05	
German	06	
Japanese	07	
Korean	08	
Portuguese	09	
Any Filipino language	10	
Other: **(WRITE IN)** ____________________	11	

29. What other language is spoken in your home?
(CIRCLE ONE)

No other language is spoken	00	61-62/
The other language spoken is:		
English	01	
Spanish	02	
Italian	03	
Chinese	04	
French	05	
German	06	
Japanese	07	
Korean	08	
Portuguese	09	
Any Filipino language	10	
Other: (WRITE IN) ______________________	11	

NOTE: The following question pertains to fundamental freedoms of expression. This question will provide helpful information for the interpretation of survey results. If you have any reservations about answering this question, please remember that you may leave it unanswered.

30. What is your religious preference?

ANSWER TO THIS QUESTION IS OPTIONAL

(CIRCLE ONE)

Baptist	01	63-64/
Methodist	02	
Lutheran	03	
Presbyterian	04	
Episcopalian	05	
Other Protestant	06	
Roman Catholic	07	
Other Christian	08	
Jewish	09	
Moslem	10	
Buddhist	11	
Tao	12	
Other Far East religions	13	
Other: (WRITE IN) ________________	14	
None	15	

31. What is your current marital status? (CIRCLE ONE)

Single, never married	1	65/
Married	2	
Separated	3	
Divorced	4	
Widowed	5	

The next series of questions are about your educational and work experience and those of your spouse or your child's current guardian, if your child lives with his/her guardian.

32. What is the highest level of education you have completed?

(CIRCLE ONE)

Less than high school diploma		01	
GED		02	66-67/
High school graduation		03	
Vocational, trade, or business school after High School	Less than one year	04	
	One to two years	05	
	Two years or more	06	
College program	Less than two years of college	07	
	Two or more years of college	08	
	Finished a two-year program	09	
	Finished a four or five-year program	10	
	Master's degree or equivalent	11	
	Ph.D., M.D., or other advanced degree	12	

33. What is the highest level of education your spouse or your child's other current guardian has completed?

(CIRCLE ONE)

Less than high school diploma 01

GED 02

68-69/

High school graduation 03

Vocational, trade, or business school after High School
- Less than one year 04
- One to two years 05
- Two years or more 06

College program
- Less than two years of college 07
- Two or more years of college 08
- Finished a two-year program 09
- Finished a four or five-year program 10
- Master's degree or equivalent 11
- Ph.D., M.D., or other advanced degree 12

Child has no other guardian........................ 99

34. During the past week, were you working full-time (35 hours or more) or
¤ part-time?

(CIRCLE ONE)

Yes, working full-time .... 1 --> **SKIP TO** Question 35, next page 70/

Yes, working part-time .... 2 --> **SKIP TO** Question 35, next page

No, I have a job but was not at work
because of temporary illness,
vacation, or strike .... 3 --> **SKIP TO** Question 35, next page

No .... 4 --> **GO TO** Question 34A

A. IF NO: What were you doing? **(CIRCLE ONE)**
¤

Unemployed, looking for work 1 71/

Unemployed, not looking for work 2

Retired 3

In school 4

Keeping house (full-time) 5

Something else (EXPLAIN)______________________ 6

B. IF NO: Have you ever held a regular job (including self-employment)?
¤

(CIRCLE ONE)

Yes .... 1 --> **GO TO** Question 35, next page 72/

No .... 2 --> **SKIP TO** Question 36, page 19

35. Please describe your present or most recent job.

A. Are you self-employed or do you work for someone else?

(CIRCLE ONE)

Self-employed 1 08/

Working for someone else 2

B. What kind of work do/did you normally do? That is, what is/was your job called?

OCCUPATION: ____________________

C. What do/did you actually do in that job? What are/were some of your main duties?

____

D. Describe the place that you work or worked for.

INDUSTRY (e.g., manufacturer or fast-food restaurant):

____

E. What do/did they make/do?

____

____

F. Which of the categories below come closest to describing this job?

(CIRCLE ONE)

CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent	01	09-10/
CRAFTSPERSON such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter	02	
FARMER, FARM MANAGER	03	
HOMEMAKER OR HOUSEWIFE ONLY	04	
LABORER such as construction worker, car washer, sanitary worker, farm laborer	05	
MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official	06	
MILITARY such as career officer, enlisted man or woman in the Armed Forces	07	
OPERATIVE such as meat cutter, assembler, machine operator, welder; taxicab, bus, or truck driver	08	
PROFESSIONAL such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician, but not including school teacher	09	
PROFESSIONAL such as clergyman, dentist, physician, lawyer, scientist, college teacher	10	
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner	11	
PROTECTIVE SERVICE such as detective, police officer or guard, sheriff, fire fighter	12	
SALES such as salesperson, advertising or insurance agent, real estate broker	13	
SCHOOL TEACHER such as elementary or secondary	14	
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter	15	
TECHNICAL such as draftsman, medical or dental technician, computer programmer	16	
Never worked	17	
Don't know	18	

36. During the past week, was your spouse or your child's current guardian (the one your child lives with) working full-time (35 hours a week or more) or part-time?

(CIRCLE ONE)

Yes, working full-time .... 1 --> **SKIP TO** Question 37, next page 11/

Yes, working part-time .... 2 --> **SKIP TO** Question 37, next page

No, he/she has a job, but was not at work because of temporary illness, vacation or strike .... 3 --> **SKIP TO** Question 37, next page

No .... 4 --> **GO TO** Question 36A

A. IF NO: What was he/she doing? **(CIRCLE ONE)**

Unemployed, looking for work 1 12/

Unemployed, not looking for work 2

Retired 3

In school 4

Keeping house (full-time) 5

Something else (EXPLAIN)____________________ 6

B. IF NO: Has he/she ever held a regular job (including self-employment)?

(CIRCLE ONE)

Yes .... 1 --> **GO TO** Question 37, next page 13/

No .... 2 --> **SKIP TO** Question 38, page 22

37. Please describe your spouse's present or most recent job.

A. Is he/she self-employed or does he/she work for someone else?

(CIRCLE ONE)

Self-employed	1	14/
Works for someone else	2	

B. What kind of work does/did he/she normally do? What is/was his/her job called?

Occupation: ____________________

C. What does/did he/she actually do in that job? What are/were some of his/her main duties?

____

D. Describe the place that he/she does or did work for.

INDUSTRY (e.g., manufacturer, fast-food restaurant):

____

____

E. What do/did they make/do?

____

____

F. Which of the categories below come closest to describing this job?

(CIRCLE ONE)

15-16/

CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent 01

CRAFTSPERSON such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter 02

FARMER, FARM MANAGER 03

HOMEMAKER OR HOUSEWIFE ONLY 04

LABORER such as construction worker, car washer, sanitary worker, farm laborer 05

MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official 06

MILITARY such as career officer, enlisted man or woman in the Armed Forces 07

OPERATIVE such as meat cutter, assembler, machine operator, welder; taxicab, bus, or truck driver 08

PROFESSIONAL such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician, but not including school teacher................ 09

PROFESSIONAL such as clergyman, dentist, physician, lawyer, scientist, college teacher 10

PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner 11

PROTECTIVE SERVICE such as detective, police officer or guard, sheriff, fire fighter 12

SALES such as salesperson, advertising or insurance agent, real estate broker 13

SCHOOL TEACHER such as elementary or secondary 14

SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter 15

TECHNICAL such as draftsman, medical or dental technician, computer programmer 16

Never worked 17

Don't know 18

38. What was the highest level of education completed by your father?

(CIRCLE ONE)

17-18/

Less than high school diploma		01
GED		02
High school graduation		03
Vocational, trade, or business school after High School	Less than one year	04
	One to two years	05
	Two years or more	06
College program	Less than two years of college	07
	Two or more years of college	08
	Finished a two-year program	09
	Finished a four or five-year program	10
	Master's degree or equivalent	11
	Ph.D., M.D., or other advanced degree	12

39. How many times has your child changed school since he/she entered first
* grade? (DO NOT count changes that occurred as a result of school policy, for example, because of promotion to another grade or level. That is, do not count changes that occurred in the normal progression from one school to another in the same school district.)

(CIRCLE ONE)

None	0	19/
One	1	
Two	2	
Three	3	
Four	4	
Five or more	5	

40. How long has your child been at his/her current school?

(CIRCLE ONE)

This is his/her first year	1	20/
This is his/her second year	2	
This is his/her third year	3	
This is his/her fourth year	4	
This is his/her fifth year or more	5	

41. What is your name, address and telephone number?
*

NAME:

Last 21-40/ First 41-52/ Middle 53-62/

BEGIN DECK 04

ADDRESS:
Number Street 08-27/

ADDRESS CONTINUED:
BEGIN DECK 05 Apt. No. 28-47/

City 48-67/ State 08-22/ Zip Code 23-27/

If you don't have a telephone, Check this box ☐ 28/

TELEPHONE: ( )
Area Code 29-31/ Number 32-38/

42. What is the name, address and telephone number of a close relative who does not live with you? Choose someone who is likely to know how to locate you if you move.
*

BEGIN DECK 06

NAME:

Last 39-58/ First 59-70/ Middle 08-17/

ADDRESS:
Number Street 18-37/

ADDRESS CONTINUED:
BEGIN DECK 07 Apt. No. 38-57 /

City 58-77/ State 08-22/ Zip Code 23-27/

TELEPHONE: (If known) ( )
Area Code 28-30/ Number 31-37/

What is this person's relation to you? 38-49/

43. What is the name, address, and telephone number of a close family friend who
* does not live with you? Choose someone who is likely to know how to locate you if you move.

BEGIN DECK 08

NAME: ____________________ ____________________ ____________________
Last 50-69/ First 08-19/ Middle 20-29/

ADDRESS: ____
Number Street 30-49/

ADDRESS CONTINUED: ____
Apt. No. 50-69/

BEGIN DECK 0

____________________ ____________________ ____________________
City 08-27/ State 28-42/ Zip Code 43-47/

TELEPHONE: (If known) ( ) ____________________
Area Code 48-50/ Number 51-57/

44. Where do you expect your child to attend high school?
*

BEGIN DECK 1

NAME OF SCHOOL: ____
08-37/

ADDRESS OF SCHOOL: ____
Street

____________________ ____________________ ____________________
City 38-57/ State 58-72/ Zip Code 73-77/

BEGIN DECK 11

TELEPHONE (if known): ( ) ____________________
Area Code 08-10/ Number 11-17/

DECK 11

PART-2 YOUR CHILD'S FUTURE

The following questions are about your child's plans for the future.

1. How far in school do you expect your child to go?

(CIRCLE ONE)

Less than high school diploma		01	18-19/
GED		02	
High school graduation		03	
Vocational, trade, or business school after High School	Less than one year	04	
	One to two years	05	
	Two years or more	06	
College program	Less than two years of college	07	
	Two or more years of college	08	
	Finish a two-year program	09	
	Finish a four or five-year program	10	
	Master's degree or equivalent	11	
	Ph.D., M.D., or other advanced degree	12	

2. Other than your child him/herself, who do you think will influence his/her plans for high school?

(CIRCLE ONE)

Mostly you 1 20/

Mostly your spouse (or your child's current guardian) 2

You and your spouse (or your child's current guardian) about equally 3

Neither you nor your spouse (or child's current guardian) 4

3. Who do you think is the most influential in deciding a student's plans for high school?

(CIRCLE ONE)

The student him/herself 1 21/

Teachers 2

Counselors 3

Parents/Guardians 4

Other (**WRITE IN** ________________________).. 5

4. Do you feel that your child has any of the following problems?

(CIRCLE ONE ON EACH LINE)

	Yes	No	
a. Visual handicap (not corrected by glasses)	1	2	22/
b. Hearing problem	1	2	23/
c. Deafness	1	2	24/
d. Speech problem	1	2	25/
e. Orthopedic problem (for example, club foot, absence of arm or leg, cerebral palsy, amputation, polio)	1	2	26/
f. Specific learning problem (for example, imperfect ability to listen think, speak, read, write, spell, or do mathematical calculations)	1	2	27/
g. Other health problem (Write in)______________	1	2	28/

PART-3 YOUR CHILD'S SCHOOL LIFE

1. Did your child ever attend any of the following structured programs outside your home?

(CIRCLE ONE ON EACH LINE)

	Yes	No	Don't know	
a. Day care or child care	1	2	8	29/
b. Nursery or pre-school	1	2	8	30/
c. Head Start	1	2	8	31/
d. Kindergarten	1	2	8	32/
e. Extended Day	1	2	8	33/

2. Has your child ever received special services for any or all of the following conditions?

(CIRCLE ONE ON EACH LINE)

	Yes	No	Don't know	
a. Visual handicap (not corrected by glasses)	1	2	8	34/
b. Hearing problem	1	2	8	35/
c. Deafness	1	2	8	36/
d. Speech problem	1	2	8	37/
e. Orthopedic problem (for example, club foot, absence of arm or leg, cerebral palsy, amputation, polio)	1	2	8	38/
f. Specific learning problem (for example, imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations)	1	2	8	39/
g. Other health problem (Write in)________________	1	2	8	40/

3. Is your child considered to have a behavior problem at school?
*

(CIRCLE ONE)

Yes 1 41/

No 2

Don't know 8

4. Was your child ever considered to have a behavior problem at school?

(CIRCLE ONE)

Yes 1 42/

No 2

Don't know 8

5. Was your child ever accelerated (skipped a grade) in school because you or the child's other parent or guardian requested it?

(CIRCLE ONE)

Yes 1 43/

No 2

6. Was your child ever accelerated (skipped a grade) in school because the school recommended it?

(CIRCLE ONE)

Yes 1 44/

No 2

7. If your answer to Questions 5 and/or 6 was Yes, what grade(s) did he/she skip?

(CIRCLE ALL THAT APPLY)

a. Kindergarten..........	1	45/	e. Fourth...............	1	49/
b. First.................	1	46/	f. Fifth................	1	50/
c. Second................	1	47/	g. Sixth................	1	51/
d. Third.................	1	48/	h. Seventh..............	1	52/

8. Was your child ever held back in school because you or the child's other parent or guardian requested it?

(CIRCLE ONE)

Yes.................. 1 53/

No................... 2

9. Was your child ever held back in school because the school recommended it?

(CIRCLE ONE)

Yes.................. 1 54/

No................... 2

10. If your answer to Questions 8 and/or 9 was Yes, what grade(s) did he/she repeat?

(CIRCLE ALL THAT APPLY)

a. Kindergarten...............	1	55/
b. First......................	1	56/
c. Second.....................	1	57/
d. Third......................	1	58/
e. Fourth.....................	1	59/
f. Fifth......................	1	60/
g. Sixth......................	1	61/
h. Seventh....................	1	62/
i. Eighth.....................	1	63/

11. Did someone read to your child before he/she was able to read to him/herself?

(CIRCLE ONE)

Yes 1 64/

No 2

Can't remember or don't know 8

12. Is your child currently enrolled in any of the following special
* programs/services?

(CIRCLE ONE ON EACH LINE)

	Yes	No	Don't know	
a. Bilingual or bicultural education........	1	2......	8	65/
b. English as a second language	1	2	8	66/
c. Special Services for orthopedically handicapped	1	2	8	67/
d. Special education services for slow learners	1	2	8	68/

13. Is your child currently enrolled in a gifted or talented program?

(CIRCLE ONE)

Yes .... 1 --> **GO TO** Question 14, next page 69/

No .... 2 --> **SKIP TO** Section 4, Question 1

Don't know .... 8 --> **SKIP TO** Section 4, Question 1

14. How important to you are each of the following possible benefits of a gifted and talented program:

(CIRCLE ONE ON EACH LINE)

	Very important	Somewhat important	Not very important	Not at all important	
a. Child may complete school faster	1	2	3	4	70/
b. Child may gain deeper understanding of school subjects	1	2	3	4	71/
c. Child has opportunity to associate with other high-ability children	1	2	3	4	72/
d. Child has greater intellectual challenge and stimulus	1	2	3	4	73/
e. Child has opportunities for development of musical or artistic values	1	2	3	4	74/

BEGIN DECK 12

PART-4 YOUR CHILD'S FAMILY LIFE

1. About how many books did you read during the past year?

(CIRCLE ONE)

None 1 08/

One or two 2

Between three and ten ... 3

More than ten 4

2. Do you have a computer used for educational purposes in your home?

(CIRCLE ONE)

Yes 1 09/

No 2

3. Does your child attend classes outside of his/her regular school to study any of the following?

(CIRCLE ONE ON EACH LINE)

	Yes	No	
a. Art	1	2	10/
b. Music	1	2	11/
c. Dance	1	2	12/
d. Language	1	2	13/
e. Religion	1	2	14/
f. The history and culture of your ancestors	1	2	15/
g. Other (**WRITE IN** ________________)	1	2	16/

4. Do you have rules for your child about any of the following television-related activities?

(CIRCLE ONE ON EACH LINE)

	Yes	No	
a. What programs he/she may watch	1	2	17/
b. How early or late he/she may watch television	1	2	18/
c. How many hours he/she may watch television overall	1	2	19/
d. How many hours he/she may watch television on school days	1	2	20/

5. Do you enforce rules for your child about any of the following activities?

(CIRCLE ONE ON EACH LINE)

	Yes	No	
a. The grades he/she must maintain in school	1	2	21/
b. Doing homework	1	2	
c. Doing household chores	1	2	

6. How satisfied are you with the education your child has received up to now?

(CIRCLE ONE)

Very satisfied 1 22/
Somewhat satisfied 2
Not satisfied at all 3

7. Parents differ in how much they talk to their children about what they do in school. How much do you talk with your child about his/her experiences in school?

(CIRCLE ONE)

Not at all 1 23/

Somewhat 2

A great deal 3

8. How much do you talk with your child about his/her report card?

(CIRCLE ONE)

Not at all 1 24/

Somewhat 2

A great deal 3

9. Parents differ in how much they talk to their children about their plans for high school. How much do you talk with your child about his/her plans for high school?

(CIRCLE ONE)

Not at all 1 25/

Somewhat 2

A great deal 3

10. How much do you talk with your child about his/her plans for after high school?

(CIRCLE ONE)

Not at all 1 26/

Somewhat 2

A great deal 3

11. How often do you or your spouse help your child with his/her homework?

(CIRCLE ONE)

Seldom or never 1 27

Once or twice a month. 2

Once or twice a week . 3

Almost every day 4

12. Are any of the following people usually at home when your child returns home
* from school?

(CIRCLE ONE ON EACH LINE)

	Yes	No	
a. Both parents	1	2	28/
b. You	1.......	2	29/
c. Your spouse	1.......	2	30/
d. Other adult relative	1.......	2	31/
e. A sitter	1.......	2	32/
f. An adult neighbor.	1.......	2	33/
g. Older brother or sister	1	2	34/
h. Younger brother or sister	1	2	35/
i. No one	1	2	36/

13. How much time does your child spend by him/herself each day after school,
* without adult supervision?

(CIRCLE ONE)

None 0 37/

Less than 1 hour 1

More than 1, but less than 2 hours 2

2 hours or more, but less than 3 hours . 3

More than 3 hours...................... 4

14. Do you or your child take part in any of the following activities?

Circle TWO on each line, one for you and one for your child.

	A. YOU			B. YOUR CHILD			
	Yes	No		Yes	No	Don't Know	
a. Borrow books from the public library	1	2	38/	1	2	8	39/
b. Attend concerts or other musical events	1	2	40/	1	2	8	41/
c. Go to art museums	1	2	42/	1	2	8	43/
d. Go to science museums	1	2	44/	1	2	8	45/

PART-5 YOUR CONTACT WITH YOUR CHILD'S SCHOOL

1. How many times during the past year has your child's school contacted you about each of the following?

(CIRCLE ONE ON EACH LINE)

	None	Once or twice	Three or four times	More than four times	
a. Your child's academic work or choice of courses	0	1	2	3	46/
b. Your child's behavior	0	1	2	3	47/
c. Doing something for the school (like fundraising)	0	1	2	3	48/
d. Something administrative, like asking your address	0	1	2	3	49/
e. Doing volunteer work	0	1	2	3	50/

2. How many times during the past year have you contacted your child's school about each of the following?

(CIRCLE ONE ON EACH LINE)

	None	Once or twice	Three or four times	More than four times	
a. Your child's academic work or choice of courses	0	1	2	3	51/
b. Your child's behavior	0	1	2	3	52/
c. Doing something for the school (like fundraising)	0	1	2	3	53/
d. Something administrative, like providing your address	0	1	2	3	54/
e. Doing volunteer work	0	1	2	3	55/

3. Do you do any of the following at or with your child's school?

(CIRCLE ONE ON EACH LINE)

Yes No

a. Belong to a parent-teacher organization .... 1 ...... 2 56/

b. Attend meetings of a parent-teacher organization .... 1 ...... 2 57/

c. Take part in the activities of a parent-teacher organization .... 1 ...... 2 58/

d. Act as a volunteer at the school .... 1....... 2 59/

4. Have you been consulted by your child's school about any of the following?

(CIRCLE ONE ON EACH LINE)

Yes No

a. Your child's course selection for this year .... 1 ...... 2 60/

b. Your child's course selection for high school .... 1 ...... 2 61/

c. Special placement decision regarding your child .... 1 ...... 2 62/

5. Have you attended any parent-teacher conferences for your child this year?

(CIRCLE ONE)

Yes 1 63/

No 2

6. Have you received any information from the school about vocational or pre-vocational courses available to your child?

(CIRCLE ONE)

Yes 1 64/

No 2

PART-6 YOUR OPINIONS ABOUT YOUR CHILD'S SCHOOL

1. Indicate the extent of your agreement or disagreement with each of the following statements about the school your child attends.

(CIRCLE ONE ON EACH LINE)

	Disagree Strongly	Disagree	Agree	Agree Strongly	
a. The school places a high priority on learning	1	2	3	4	65/
b. The homework assigned is worthwhile	1	2	3	4	66/
c. My child is challenged at school	1	2	3	4	67/
d. My child is working hard at school	1	2	3	4	68/
e. My child enjoys school	1	2	3	4	69/
f. The standards set by the school are realistic	1	2	3	4	70/
g. The school is preparing students adequately for high school	1	2	3	4	71/
h. The school is preparing students adequately for college	1	2	3	4	72/
i. The school is a safe place	1	2	3	4	73/
j. Parents have an adequate voice in setting school policy	1	2	3	4	74/

PART-7 FINANCIAL INFORMATION AND EDUCATIONAL COSTS

This next series of questions is about the present situation of you and your family. We need this information in order to compare your answers with those of other people who take part in this survey. This information will be kept confidential and it will never be used with your name.

For the questions in this section, we do not need to know the exact amount of money but only ranges of income and assets. For each type of income, choose the letter code from the following list that comes closest to the amount of income your family received from that source. IF YOU ARE NOT SURE ABOUT THE AMOUNT FOR SOME TYPES OF INCOME, PLEASE ESTIMATE.

None	**O**	**$ 20,000 - $ 24,999**	**H**
Less than $1,000	**A**	**$ 25,000 - $ 34,999**	**I**
$ 1,000 - $ 2,999	**B**	**$ 35,000 - $ 49,999**	**J**
$ 3,000 - $ 4,999	**C**	**$ 50,000 - $ 74,999**	**K**
$ 5,000 - $ 7,499	**D**	**$ 75,000 - $ 99,999**	**L**
$ 7,500 - $ 9,999	**E**	**$100,000 - $199,999**	**M**
$10,000 - $14,999	**F**	**$200,000 or more**	**N**
$15,000 - $19,999	**G**		

1. About your total family income in 1986. — USE LETTER CODES FROM CHART ABOVE

   A. How much did your family receive from wages, salary, commissions, or tips from all jobs, before deductions for taxes or anything else? ☐ 08/

   B. How much income did your family receive from work you did on your own or in your own business or farm? (Net income, that is, income after expenses.) ☐ 09/

2. Is there one parent or are there two parents in your household?

(CIRCLE ONE)

One parent .... 1 — 10/

Two parent 2

3. About your FAMILY'S debts and savings, but not including those of your CHILDREN:

A. Using the above list, choose the letter code that represents how much you currently owe (Include mortgage and consumer debt) .... ☐ 11/

B. Using the above list, use the letter code that represents how much money you have in savings now. (DO NOT COUNT IRAs but include savings and investments) .... ☐ 12/

C. Using the above list, choose the letter code that represents how much you had in savings at this time last year. (DO NOT COUNT IRAs but include savings and investments) .... ☐ 13/

4. Do you currently have any of the following educational expenses for any of your children?

(CIRCLE ONE ON EACH LINE)

	Yes	No	
a. Private or religious school tuition and associated expenses	1	2	14/
b. College tuition and associated expenses......	1	2	15/
c. Tutoring	1	2	16/

If your answer to a, b & c is "NO" in every case, SKIP TO Q. 6.

5. USE LETTER CODE FROM CHART BELOW

A. Using the chart below, enter the letter that represents the total amount you have spent or will spend 86-87 school year for all of the educational expenses you circled in Question 3...... ☐ 17/

None	O	$ 4,000 - $ 4,999	G
Less than $100	A	$ 5,000 - $ 5,999	H
$ 100 - $ 499.......	B	$ 6,000 - $ 7,999	I
$ 500 - $ 999.......	C	$ 8,000 - $ 9,999	J
$1,000 - $1,999.......	D	$ 10,000 - $14,999	K
$2,000 - $2,999.......	E	$ 15,000 - $19,999	L
$3,000 - $3,999.......	F	$ 20,000 or more............	M

B. Which of the following sources of money did you or will you use to cover educational expenses (of the type listed in question 4 above)?

(CIRCLE ALL THAT APPLY)

a. Your (or your spouse's) current earnings....................	1	18/
b. Your (or your spouse's) savings or sale of assets...........	1	19/
c. Second mortgage..	1	20/
d. Your (or your spouse's) borrowing (personal loan, etc.).....	1	21/
e. Alimony or child support...................................	1	22/
f. Your child's earnings or savings............................	1	23/
g. A trust fund..	1	24/
h. Contributions from relatives................................	1	25/
i. Scholarships or grants......................................	1	26/
j. State or federal loans......................................	1	27/
k. Social Security or Veteran's Administration benefits........	1	28/
l. Other **(WRITE IN)**________________________________...	1	29/

6. Have you, your spouse, or your child's custodial parent or legal guardian
* done anything specific in order to have some money for your child's education after high school?

(CIRCLE ONE)

Yes .... 1 --> **GO TO** Question 6A, 6B, 6C and 6D 30/

No .... 2 --> **SKIP TO** Question 7, page 47

A. IF YES: Have you . . .
*

(CIRCLE ONE ON EACH LINE)

	Yes	No	
a. Started a savings account	1	2	31/
b. Bought an insurance policy	1	2	32/
c. Bought U.S. Savings Bonds	1	2	33/
d. Made investments in stocks or real estate ..	1	2	34/
e. Set up a trust fund	1	2	35/
f. Started working or taken an additional job .	1	2	36/
g. Something else (DESCRIBE)________________ ______________________________ .	1	2	37/

B. About how much money have you set aside for your child's future
* educational needs?

(WRITE AMOUNT HERE $____________________ and **CIRCLE ONE** Below)

None	0	38/
Less than $1,000	1	
$ 1,000 to $ 3,000 ...	2	
$ 3,001 to $ 6,000 ...	3	
$ 6,001 to $10,000 ...	4	
$10,001 to $15,000 ...	5	
More than $15,000	6	

C. **About how much money do you expect to have set aside for your child's**
* future educational needs by the time s/he finishes high school?

(**WRITE AMOUNT HERE** $____________________ and **CIRCLE ONE** Below)

None	0	39/
Less than $1,000	1	
$ 1,000 to $ 3,000 ...	2	
$ 3,001 to $ 6,000 ...	3	
$ 6,001 to $10,000 ...	4	
$10,001 to $15,000 ...	5	
More than $15,000	6	

D. Do you expect this amount to cover the total cost of his/her education?

(CIRCLE ONE)

Yes	1	40/
No	2	

If NO, where will the additional money come from?

(DESCRIBE.)____

41-42/

____

7. The following statements are about financial aid for education beyond high school. Indicate whether each statement is true or false for your family, no matter what plans your child has.

(CIRCLE ONE ON EACH LINE)

	True	False	We haven't thought about this yet	
a. My child will be able to earn all the money he/she will need for schooling beyond high school	1	2	3	43/
b. We can pay for our child's further education without getting any outside assistance	1	2	3	44/
c. The family is not willing to go into debt for schooling	1	2	3	45/
d. The family income is too high to qualify for a loan or scholarship	1	2	3	46/
e. My child's grades are probably not high enough to qualify for a loan or scholarship	1	2	3	47/
f. My child's test scores are probably not good enough to qualify for a loan or scholarship	1	2	3	48/
g. Too much paper work is required in order to apply for financial aid	1	2	3	49/
h. I have not been able to get much information on how and where to apply for financial aid	1	2	3	50/
i. I do not see any way of getting enough money to allow my child to get more education	1	2	3	51/
j. Other relatives will help to pay my child's educational expenses	1	2	3	52/

Item 6

Teacher Questionnaire

OMB No. 1850-0953
Expires June 30, 1987

TEACHER QUESTIONNAIRE
NELS: 88
NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988
FIELD TEST

Prepared for:

U.S. Department of Education
Center for Education Statistics

Prepared by:

NORC,
A Social Science Research Center
University of Chicago

As a matter of policy, the Center for Education Statistics is concerned with protecting the privacy of individuals who participate in voluntary surveys. We want to let you know that:

1. Section 406 of the General Education Provisions Act (20-USC 1221e-1) allows us to ask you the questions in this questionnaire.
2. You may skip any questions you do not wish to answer.
3. We are asking you these questions in order to gather information about what happens to students as they move into high school and make decisions about postsecondary education and work.
4. Your responses will be merged with those of other respondents, and the answers you give will never be identified as yours.

This questionnaire is part of a large national study of eighth grade students and their parents, schools and teachers. Your school has agreed to participate in this study and has allowed us to select a random sample of eighth graders, who will be the focus of several data collection activities in the coming weeks. A list of these sampled students should be included in the same packet that contains this questionnaire. (If the list is missing, please report the problem to the study coordinator at your school -- the person who distributed this questionnaire to you.) You have been identified as a current teacher of one or more of the sampled eighth graders, and in that capacity, we are seeking information from you to supplement other study data about these students.

The questionnaire has three very different sections:

- Part I (pp. 1-2) asks you to indicate which of the sampled students you have had in class this year, and for each of those, to evaluate whether or not the student has had various school-related problems and handicaps. Individual students are referred to by "Student No.," as shown in the attached list of sampled students.
- Part II (pp. 3-12) asks a series of questions about specific, designated classes. The particular class or classes for which information is being requested is indicated on the label that is affixed to the cover page of this questionnaire. As you will see, Part II contains room for responses to a maximum of five classes. You may not need all five response columns, however: use only as many columns as are needed to respond separately for each of the classes listed on the label. In the unlikely event that your label lists more than five classes, your packet should contain a "Continuation Questionnaire" (Part II only) for use in answering questions about classes numbered 6 and above.
- Part III (pp. 13-21) requests some general background information about yourself and your school.

Please answer directly on the questionnaire by circling the appropriate number or by writing your response in the space provided.

We realize that you are very busy; however, we ask that you complete the questionnaire and return it to your school's study coordinator within the next two weeks (or sooner, if asked by the coordinator). To protect the confidentiality of your responses, we suggest that you return the completed questionnaire to its original envelope and then seal the envelope before turning it in.

Thank you very much for your help.

PART I. STUDENT INFORMATION

Please answer the questions in this section by circling the appropriate response for each of the students in the attached list: 1=Yes; 2=No; 8=Don't Know (DK). NOTE: Please answer Question 1 for each student listed. Questions 2-10 apply only to students for whom Question 1 = YES.

Student Number (from attached list)	ANSWER FOR EACH STUDENT		IF YES TO QUESTION 1: PLEASE INDICATE WHETHER THIS STUDENT:														
	1. Has this student been regularly assigned to one or more of your classes since September 1986?		2. Consistently performs below ability?			3. Rarely completes homework?			4. Is frequently absent?			5. Is frequently tardy?			6. Is consistently inattentive in class?		
	Yes	No	Yes	No	DK	Yes	No	DK	Yes	No	DK	Yes	No	DK	Yes	No	DK
01	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
02	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
03	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
04	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
05	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
06	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
07	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
08	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
09	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
10	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
11	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
12	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
13	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
14	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
15	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
16	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
17	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
18	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
19	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
20	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
21	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
22	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
23	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
24	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
25	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
26	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
27	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
28	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
29	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
30	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	
31	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
32	1	2	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8

PART I. (CONTINUED)

Student Number (from attached list)	7. Is exceptionally passive or withdrawn?			8. Is frequently disruptive?			9. Has ever fallen behind in school work because of a health problem?			10. Currently has a physical or emotional handicap that is affecting his or her school work?			11. Is a Language Minority (LM) student?			12. Is a Limited English Proficiency (LEP) student?		
	Yes	No	DK	Yes	No	DK	Yes	No	DK	Yes	No	DK	Yes	No	DK	Yes	No	DK
01	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
02	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
03	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
04	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
05	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
06	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
07	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
08	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
09	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
10	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
11	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
12	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
13	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
14	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
15	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
16	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
17	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
18	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
19	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
20	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
21	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
22	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
23	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
24	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
25	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
26	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
27	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
28	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
29	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
30	2	1	8	2	8	1	2	8	1	2	8	1	2	8	1	2	8	
31	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8
32	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8	1	2	8

PART II. CLASS INFORMATION

Please answer the following questions for each class designated on the face sheet of the questionnaire.

	CLASS #1	CLASS #2
1. What is the title of this class? (e.g., Algebra, English 8, Earth Science, etc.)	____________________	____________________
2. Which of the following best describes the ability makeup of the 8th graders in this class compared with the average 8th grade student in this school?	This class consists of: (CIRCLE ONE) Primarily higher ability students .... 1 Primarily average ability students .... 2 Primarily lower ability students .... 3 Students of widely differing ability 4	This class consists of: (CIRCLE ONE) Primarily higher ability students .... 1 Primarily average ability students .... 2 Primarily lower ability students .... 3 Students of widely differing ability 4
3. How many students are enrolled in this class?	|__|__| students	|__|__| students
4. Do you teach any part of this class in a non-English language?	(CIRCLE ONE) Yes .... 1 - Answer Question 5 No .... 2 - Skip to Question 6	(CIRCLE ONE) Yes .... 1 - Answer Question 5 No .... 2 - Skip to Question 6
5. What language is that?	Name of language ____________	Name of language ____________
6. How many Limited English Proficiency (LEP) students are assigned to this class?	No. of LEP students in this class |__|__|	No. of LEP students in this class |__|__|
7. How many minutes of homework do you assign each day?	|__|__| Minutes	|__|__| Minutes

8. How often do you do each of the following with homework assignments?

	CLASS #1 (CIRCLE ONE ON EACH LINE)				CLASS #2 (CIRCLE ONE ON EACH LINE)			
	All the time	Most of the time	Some of the time	Never	All the time	Most of the time	Some of the time	Never
a. Keep records of who turned in the assignment	1	2	3	4	1	2	3	4
b. Return assignments with grades or corrections	1	2	3	4	1	2	3	4
c. Discuss the assignment in class	1	2	3	4	1	2	3	4

9. Which textbook (or commercially prepared workbook) constitutes the primary source that you use in this class?

	CLASS #1	CLASS #2
TITLE	____________________	____________________
AUTHOR(S)	____________________	____________________
PUBLISHER	____________________	____________________
PUBLICATION DATE/EDITION	__________/__________	__________/__________

<table>
<tr><th>CLASS #3</th><th>CLASS #4</th><th>CLASS #5</th></tr>
<tr><td>____________________</td><td>____________________</td><td>____________________</td></tr>
<tr><td>This class consists of:
(CIRCLE ONE)
Primarily higher ability students 1
Primarily average ability students 2
Primarily lower ability students 3
Students of widely differing ability .... 4</td><td>This class consists of:
(CIRCLE ONE)
Primarily higher ability students 1
Primarily average ability students 2
Primarily lower ability students 3
Students of widely differing ability .... 4</td><td>This class consists of:
(CIRCLE ONE)
Primarily higher ability students 1
Primarily average ability students 2
Primarily lower ability students 3
Students of widely differing ability .... 4</td></tr>
<tr><td>|__|__| students</td><td>|__|__| students</td><td>|__|__| students</td></tr>
<tr><td>(CIRCLE ONE)
Yes .... 1 - Answer Question 5
No .... 2 - Skip to Question 6</td><td>(CIRCLE ONE)
Yes .... 1 - Answer Question 5
No .... 2 - Skip to Question 6</td><td>(CIRCLE ONE)
Yes .... 1 - Answer Question 5
No .... 2 - Skip to Question 6</td></tr>
<tr><td>Name of language ____________________</td><td>Name of language ____________________</td><td>Name of language ____________________</td></tr>
<tr><td>No. of LEP
students in this class |__|__|</td><td>No. of LEP
students in this class |__|__|</td><td>No. of LEP
students in this class |__|__|</td></tr>
<tr><td>|__|__| Minutes</td><td>|__|__| Minutes</td><td>|__|__| Minutes</td></tr>
<tr><td>(CIRCLE ONE ON EACH LINE)
All the time / Most of the time / Some of the time / Never
a. 1 2 3 4
b. 1 2 3 4
c. 1 2 3 4</td><td>(CIRCLE ONE ON EACH LINE)
All the time / Most of the time / Some of the time / Never
a. 1 2 3 4
b. 1 2 3 4
c. 1 2 3 4</td><td>(CIRCLE ONE ON EACH LINE)
All the time / Most of the time / Some of the time / Never
a. 1 2 3 4
b. 1 2 3 4
c. 1 2 3 4</td></tr>
<tr><td>____________________
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__________/__________</td><td>____________________
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__________/__________</td><td>____________________
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__________/__________</td></tr>
</table>

	CLASS #1	CLASS #2
10. Approximately what percentage of this textbook/workbook will you "cover" in this course	(CIRCLE ONE) 0-49% 50-59% 60-69% 70-79% 80-89% 90-99% 100% 1 2 3 4 5 6 7	(CIRCLE ONE) 0-49% 50-59% 60-69% 70-79% 80-89% 90-99% 100% 1 2 3 4 5 6 7
11. Please give your opinion about each of the following statements related to this textbook/workbook. This textbook:	(CIRCLE ONE ON EACH LINE) Strongly Agree / Agree / No Opinion / Disagree / Strongly Disagree	(CIRCLE ONE ON EACH LINE) Strongly Agree / Agree / No Opinion / Disagree / Strongly Disagree
a. is at a reading level which is too difficult for most of my students	1 2 3 4 5	1 2 3 4 5
b. helps develop problem-solving skills	1 2 3 4 5	1 2 3 4 5
c. explains concepts clearly	1 2 3 4 5	1 2 3 4 5
d. provides good suggestions for homework assignments	1 2 3 4 5	1 2 3 4 5
12. Indicate the persons or groups who helped determine that you would use this particular textbook/workbook in this class.	(CIRCLE ALL THAT APPLY)	(CIRCLE ALL THAT APPLY)
	a. I did 1	a. I did 1
	b. The principal 1	b. The principal 1
	c. A group of teachers from this school 1	c. A group of teachers from this school 1
	d. A district-wide textbook adoption committee 1	d. A district-wide textbook adoption committee 1
	e. A state-wide textbook adoption committee 1	e. A state-wide textbook adoption committee 1
	f. Department Head 1	f. Department Head 1
	g. Other 1	g. Other 1
13. How adequately prepared do you feel to teach the subject matter covered in this course?	(CIRCLE ONE)	(CIRCLE ONE)
	Totally unprepared 1	Totally unprepared 1
	Somewhat prepared 2	Somewhat prepared 2
	Adequately prepared 3	Adequately prepared 3
	Well prepared 4	Well prepared 4
	Very well prepared 5	Very well prepared 5
14. How many hours per week does this class meet regularly (exclude lab periods)?	|__| Hours	|__| Hours
15. Indicate about how much time you spend each week doing each of the following with this class.	(CIRCLE ONE ON EACH LINE) None / <1 hr. / 1 hr. / 2 hr. / 3 hr. / 4 hr. / 5+ hr.	(CIRCLE ONE ON EACH LINE) None / <1 hr. / 1 hr. / 2 hr. / 3 hr. / 4 hr. / 5+ hr.
a. providing instruction to the class as a whole	1 2 3 4 5 6 7	1 2 3 4 5 6 7
b. providing instruction to small groups of students	1 2 3 4 5 6 7	1 2 3 4 5 6 7
c. providing instruction to individual students	1 2 3 4 5 6 7	1 2 3 4 5 6 7
d. maintaining order/disciplining students	1 2 3 4 5 6 7	1 2 3 4 5 6 7
e. administering tests or quizzes	1 2 3 4 5 6 7	1 2 3 4 5 6 7
f. performing routine administrative tasks (e.g., taking attendance, making announcements, etc.)	1 2 3 4 5 6 7	1 2 3 4 5 6 7
g. conducting lab periods	1 2 3 4 5 6 7	1 2 3 4 5 6 7

CLASS #3	CLASS #4	CLASS #5
(CIRCLE ONE) 0-49% 50-59% 60-69% 70-79% 80-89% 90-99% 100% 1 2 3 4 5 6 7	(CIRCLE ONE) 0-49% 50-59% 60-69% 70-79% 80-89% 90-99% 100% 1 2 3 4 5 6 7	(CIRCLE ONE) 0-49% 50-59% 60-69% 70-79% 80-89% 90-99% 100% 1 2 3 4 5 6 7
(CIRCLE ONE ON EACH LINE) Strongly Agree / Agree / No Opinion / Disagree / Strongly Disagree 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5	(CIRCLE ONE ON EACH LINE) Strongly Agree / Agree / No Opinion / Disagree / Strongly Disagree 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5	(CIRCLE ONE ON EACH LINE) Strongly Agree / Agree / No Opinion / Disagree / Strongly Disagree 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5
(CIRCLE ALL THAT APPLY) a. I did ..... 1 b. The principal ..... 1 c. A group of teachers from this school ..... 1 d. A district-wide textbook adoption committee ..... 1 e. A state-wide textbook adoption committee ..... 1 f. Department Head ..... 1 g. Other 1	(CIRCLE ALL THAT APPLY) a. I did ..... 1 b. The principal ..... 1 c. A group of teachers from this school ..... 1 d. A district-wide textbook adoption committee ..... 1 e. A state-wide textbook adoption committee ..... 1 f. Department Head ..... 1 g. Other 1	(CIRCLE ALL THAT APPLY) a. I did ..... 1 b. The principal ..... 1 c. A group of teachers from this school ..... 1 d. A district-wide textbook adoption committee ..... 1 e. A state-wide textbook adoption committee ..... 1 f. Department Head ..... 1 g. Other 1
(CIRCLE ONE) Totally unprepared ..... 1 Somewhat prepared ..... 2 Adequately prepared ..... 3 Well prepared ..... 4 Very well prepared 5	(CIRCLE ONE) Totally unprepared ..... 1 Somewhat prepared ..... 2 Adequately prepared ..... 3 Well prepared ..... 4 Very well prepared 5	(CIRCLE ONE) Totally unprepared ..... 1 Somewhat prepared ..... 2 Adequately prepared ..... 3 Well prepared ..... 4 Very well prepared 5
|__| Hours	|__| Hours	|__| Hours
(CIRCLE ONE ON EACH LINE) None / <1 hr. / 1 hr. / 2 hr. / 3 hr. / 4 hr. / 5+ hr. 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7	(CIRCLE ONE ON EACH LINE) None / <1 hr. / 1 hr. / 2 hr. / 3 hr. / 4 hr. / 5+ hr. 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7	(CIRCLE ONE ON EACH LINE) None / <1 hr. / 1 hr. / 2 hr. / 3 hr. / 4 hr. / 5+ hr. 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7

THE REMAINDER OF PART TWO CONSISTS OF QUESTIONS THAT APPLY TO SPECIFIC SUBJECTS. FOR EACH CLASS DESIGNATED ON THE FACE SHEET, PLEASE ANSWER ONLY THE QUESTIONS THAT APPLY TO THE SUBJECT BEING TAUGHT IN THAT CLASS: ENGLISH (QUESTION 16), MATHEMATICS (QUESTIONS 17-19), SOCIAL STUDIES (QUESTION 20), OR SCIENCE (QUESTIONS 21-26).

ANSWER QUESTION 16 FOR ENGLISH CLASSES ONLY.

	CLASS #1				CLASS #2			
16. Indicate how much emphasis is given in this class to the following by checking whether each is a Major Topic, Minor Topic, Review Topic, or Not Covered at All.	(CIRCLE ONE ON EACH LINE)				(CIRCLE ONE ON EACH LINE)			
	Major Topic	Minor Topic	Review Topic	Not Covered	Major Topic	Minor Topic	Review Topic	Not Covered
a. Grammar	a. 1	2	3	4	a. 1	2	3	4
b. Literature	b. 1	2	3	4	b. 1	2	3	4
c. Writing skills	c. 1	2	3	4	c. 1	2	3	4
d. Study skills	d. 1	2	3	4	d. 1	2	3	4
e. Spelling	e. 1	2	3	4	e. 1	2	3	4

ANSWER QUESTIONS 17-19 FOR MATHEMATICS CLASSES ONLY

	CLASS #1				CLASS #2			
17. Indicate how much emphasis is given in this class to the following by checking whether each is a Major Topic, Minor Topic, Review Topic, or Not Covered at All.	(CIRCLE ONE ON EACH LINE)				(CIRCLE ONE ON EACH LINE)			
	Major Topic	Minor Topic	Review Topic	Not Covered	Major Topic	Minor Topic	Review Topic	Not Covered
a. Common fractions	a. 1	2	3	4	a. 1	2	3	4
b. Decimal fractions	b. 1	2	3	4	b. 1	2	3	4
c. Ratio and proportion	c. 1	2	3	4	c. 1	2	3	4
d. Percent	d. 1	2	3	4	d. 1	2	3	4
e. Measurement	e. 1	2	3	4	e. 1	2	3	4
f. Geometry	f. 1	2	3	4	f. 1	2	3	4
g. Algebra (formulas and equations)	g. 1	2	3	4	g. 1	2	3	4
h. Integers	h. 1	2	3	4	h. 1	2	3	4
i. Probability and statistics	i. 1	2	3	4	i. 1	2	3	4
j. Problem solving	j. 1	2	3	4	j. 1	2	3	4

	CLASS #1		CLASS #2	
18. Do your students have access to pocket or hand held calculators owned by the school for use in this class?	(CIRCLE ONE)		(CIRCLE ONE)	
	Yes	No	Yes	No
	1	2	1	2

	CLASS #1		CLASS #2	
19. On the average, how often do your students use calculators (the school's or their own) in this class?	Every day	1	Every day	
	Several times a week	2	Several times a week	
	About once a week	3	About once a week	
	Hardly ever or never	4	Hardly ever or never	

	CLASS #3				CLASS #4				CLASS #5			
	(CIRCLE ONE ON EACH LINE)				(CIRCLE ONE ON EACH LINE)				(CIRCLE ONE ON EACH LINE)			
	Major Topic	Minor Topic	Review Topic	Not Covered	Major Topic	Minor Topic	Review Topic	Not Covered	Major Topic	Minor Topic	Review Topic	Not Covered
a.	1	2	3	4	1	2	3	4	1	2	3	4
b.	1	2	3	4	1	2	3	4	1	2	3	4
c.	1	2	3	4	1	2	3	4	1	2	3	4
d.	1	2	3	4	1	2	3	4	1	2	3	4
e.	1	2	3	4	1	2	3	4	1	2	3	4

	(CIRCLE ONE ON EACH LINE)				(CIRCLE ONE ON EACH LINE)				(CIRCLE ONE ON EACH LINE)			
	Major Topic	Minor Topic	Review Topic	Not Covered	Major Topic	Minor Topic	Review Topic	Not Covered	Major Topic	Minor Topic	Review Topic	Not Covered
a.	1	2	3	4	1	2	3	4	1	2	3	4
b.	1	2	3	4	1	2	3	4	1	2	3	4
c.	1	2	3	4	1	2	3	4	1	2	3	4
d.	1	2	3	4	1	2	3	4	1	2	3	4
e.	1	2	3	4	1	2	3	4	1	2	3	4
f.	1	2	3	4	1	2	3	4	1	2	3	4
g.	1	2	3	4	1	2	3	4	1	2	3	4
h.	1	2	3	4	1	2	3	4	1	2	3	4
i.	1	2	3	4	1	2	3	4	1	2	3	4
j.	1	2	3	4	1	2	3	4	1	2	3	4

(CIRCLE ONE)		(CIRCLE ONE)		(CIRCLE ONE)	
Yes	No	Yes	No	Yes	No
1	2	1	2	1	2

Every day	1	Every day	1	Every day	
Several times a week	2	Several times a week	2	Several times a week	
About once a week	3	About once a week	3	About once a week	
Hardly ever or never	4	Hardly ever or never	4	Hardly ever or never	

ANSWER QUESTION 20 FOR SOCIAL STUDIES CLASSES ONLY.

	CLASS #1					CLASS #2				
20. Indicate how much emphasis is given in this class to the following by checking whether each is a Major Topic, Minor Topic, Review Topic, or Not Covered at All.	(CIRCLE ONE ON EACH LINE)					(CIRCLE ONE ON EACH LINE)				
		Major Topic	Minor Topic	Review Topic	Not Covered		Major Topic	Minor Topic	Review Topic	Not Covered
a. State history	a.	1	2	3	4	a.	1	2	3	4
b. United States or American history	b.	1	2	3	4	b.	1	2	3	4
c. World or Western history	c.	1	2	3	4	c.	1	2	3	4
d. Civics/government	d.	1	2	3	4	d.	1	2	3	4
e. Geography	e.	1	2	3	4	e.	1	2	3	4
f. Current events	f.	1	2	3	4	f.	1	2	3	4
g. Ethics	g.	1	2	3	4	g.	1	2	3	4
h. Economics	h.	1	2	3	4	h.	1	2	3	4

ANSWER QUESTIONS 21-26 FOR SCIENCE CLASSES ONLY

21. Indicate how much emphasis is given in this class to the following by checking whether each is a Major Topic, Minor Topic, Review Topic, or Not Covered at All.	(CIRCLE ONE ON EACH LINE)					(CIRCLE ONE ON EACH LINE)				
		Major Topic	Minor Topic	Review Topic	Not Covered		Major Topic	Minor Topic	Review Topic	Not Covered
a. Plants	a.	1	2	3	4	a.	1	2	3	4
b. Animals	b.	1	2	3	4	b.	1	2	3	4
c. Human biology	c.	1	2	3	4	c.	1	2	3	4
d. Genetics	d.	1	2	3	4	d.	1	2	3	4
e. Personal health	e.	1	2	3	4	e.	1	2	3	4
f. Earth science or geology	f.	1	2	3	4	f.	1	2	3	4
g. Weather	g.	1	2	3	4	g.	1	2	3	4
h. Astronomy or space	h.	1	2	3	4	h.	1	2	3	4
i. Electricity or magnetism	i.	1	2	3	4	i.	1	2	3	4
j. Mechanics	j.	1	2	3	4	j.	1	2	3	4
k. Heat	k.	1	2	3	4	k.	1	2	3	4
l. Optics	l.	1	2	3	4	l.	1	2	3	4
m. Chemistry	m.	1	2	3	4	m.	1	2	3	4
n. Atomic theory	n.	1	2	3	4	n.	1	2	3	4
o. Environmental science	o.	1	2	3	4	o.	1	2	3	4
p. Oceanography	p.	1	2	3	4	p.	1	2	3	4
q. Science and society	q.	1	2	3	4	q.	1	2	3	4

22. How often do you demonstrate a science experiment in class?		(CIRCLE ONE)		(CIRCLE ONE
	Almost every day	1	Almost every day	1
	About once a week	2	About once a week	2
	About once a month	3	About once a month	3
	Less than once a month	4	Less than once a month	4
	Never	5	Never	5

	CLASS #3				CLASS #4				CLASS #5			
	(CIRCLE ONE ON EACH LINE)				(CIRCLE ONE ON EACH LINE)				(CIRCLE ONE ON EACH LINE)			
	Major Topic	Minor Topic	Review Topic	Not Covered	Major Topic	Minor Topic	Review Topic	Not Covered	Major Topic	Minor Topic	Review Topic	Not Covered
a.	1	2	3	4	1	2	3	4	1	2	3	4
b.	1	2	3	4	1	2	3	4	1	2	3	4
c.	1	2	3	4	1	2	3	4	1	2	3	4
d.	1	2	3	4	1	2	3	4	1	2	3	4
e.	1	2	3	4	1	2	3	4	1	2	3	4
f.	1	2	3	4	1	2	3	4	1	2	3	4
g.	1	2	3	4	1	2	3	4	1	2	3	4
h.	1	2	3	4	1	2	3	4	1	2	3	4

	(CIRCLE ONE ON EACH LINE)				(CIRCLE ONE ON EACH LINE)				(CIRCLE ONE ON EACH LINE)			
	Major Topic	Minor Topic	Review Topic	Not Covered	Major Topic	Minor Topic	Review Topic	Not Covered	Major Topic	Minor Topic	Review Topic	Not Covered
a.	1	2	3	4	1	2	3	4	1	2	3	4
b.	1	2	3	4	1	2	3	4	1	2	3	4
c.	1	2	3	4	1	2	3	4	1	2	3	4
d.	1	2	3	4	1	2	3	4	1	2	3	4
e.	1	2	3	4	1	2	3	4	1	2	3	4
f.	1	2	3	4	1	2	3	4	1	2	3	4
g.	1	2	3	4	1	2	3	4	1	2	3	4
h.	1	2	3	4	1	2	3	4	1	2	3	4
i.	1	2	3	4	1	2	3	4	1	2	3	4
j.	1	2	3	4	1	2	3	4	1	2	3	4
k.	1	2	3	4	1	2	3	4	1	2	3	4
l.	1	2	3	4	1	2	3	4	1	2	3	4
m.	1	2	3	4	1	2	3	4	1	2	3	4
n.	1	2	3	4	1	2	3	4	1	2	3	4
o.	1	2	3	4	1	2	3	4	1	2	3	4
p.	1	2	3	4	1	2	3	4	1	2	3	4
q.	1	2	3	4	1	2	3	4	1	2	3	4

	(CIRCLE ONE)		(CIRCLE ONE)		(CIRCLE O
Almost every day	1	Almost every day	1	Almost every day	
About once a week	2	About once a week	2	About once a week	
About once a month	3	About once a month	3	About once a month	
Less than once a month	4	Less than once a month	4	Less than once a month	
Never	5	Never	5	Never	

	CLASS #1	CLASS #2
23. How often do students conduct science experiments in this class?	(CIRCLE ONE) Almost every day .... 1 About once a week .... 2 About once a month .... 3 Less than once a month .... 4 Never 5	(CIRCLE ONE Almost every day .... 1 About once a week .... 2 About once a month .... 3 Less than once a month .... 4 Never 5
24. Indicate whether or not you have access to science laboratory facilities for your teaching in this class:	(CIRCLE ONE ON EACH LINE) Yes No	(CIRCLE ONE ON EACH LINE) Yes No
a. in your regular classroom	1 2	1 2
b. outside your regular classroom	1 2	1 2
25. Which of the following best describes the science equipment you have for students in this class to use?	(CIRCLE ONE)	(CIRCLE ONE)
1. Each one usually has his/her own equipment	1	1
2. One student usually shares with another	2	2
3. Groups of students (3 or more) usually share equipment	3	3
4. I have little or no equipment for students to use	4	4
26. What is the condition of the science equipment you use in this class?	(CIRCLE ONE) Excellent 1 · Good 2 · Fair 3 · Poor 4 · I have none 5	(CIRCLE ONE) Excellent 1 · Good 2 · Fair 3 · Poor 4 · I have none 5

CLASS #3	CLASS #4	CLASS #5
(CIRCLE ONE) Almost every day .... 1 About once a week .... 2 About once a month .... 3 Less than once a month .... 4 Never 5	(CIRCLE ONE) Almost every day .... 1 About once a week .... 2 About once a month .... 3 Less than once a month .... 4 Never 5	(CIRCLE ONE) Almost every day .... 1 About once a week .... 2 About once a month .... 3 Less than once a month .... 4 Never 5
(CIRCLE ONE ON EACH LINE) Yes No 1 2 1 2	(CIRCLE ONE ON EACH LINE) Yes No 1 2 1 2	(CIRCLE ONE ON EACH LINE) Yes No 1 2 1 2
(CIRCLE ONE) 1 2 3 4	(CIRCLE ONE) 1 2 3 4	(CIRCLE ONE) 1 2 3 4
(CIRCLE ONE) Excellent Good Fair Poor I have none 1 2 3 4 5	(CIRCLE ONE) Excellent Good Fair Poor I have none 1 2 3 4 5	(CIRCLE ONE) Excellent Good Fair Poor I have none 1 2 3 4 5

PART III. TEACHER BACKGROUND AND ACTIVITIES

1. What is your sex?

(CIRCLE ONE)

Male	1
Female	2

2. What is your race/ethnicity?

(CIRCLE ONE)

American Indian or Alaskan Native	1
Asian or Pacific Islander	2
Hispanic or Spanish	3
Black, not of Hispanic Origin	4
White, not of Hispanic Origin	5

3. What is the year of your birth?

19 |____|____|

4. Counting this year, how many years in total (include part-time) have you taught at either the elementary or secondary level?

|____|____| Years

5. Counting this year, how many years in total (include part-time) have you taught in this school?

|____|____| Years

6. In each of the following subjects, please indicate the type of certificate you hold from the state where you teach?

(CIRCLE ONE ON EACH LINE)

	Permanent (renewable)	Provisional, probationary, or temporary	Emergency	No certification in this area
a. Mathematics	1	2	3	4
b. Science	1	2	3	4
c. English	1	2	3	4
d. Social Studies	1	2	3	4

7. What is the highest academic degree you hold?

	(CIRCLE ONE)
High school diploma	1
Associate degree/vocational certification	2
Bachelor's	3
Master's	4
Education specialist or professional diploma based on at least one year work past MS degree level	5
Doctorate	6

8. What were your major and minor fields of study for your highest academic degree?

(CIRCLE ALL THAT APPLY)

	MAJOR	MINOR
a. Education	1	1
b. English	1	1
c. History (or Social Studies/ Social Science)	1	1
d. Mathematics	1	1
e. Physical/natural sciences	1	1
f. Other (specify) ______________________	1	1

9. Please print the name of the college/university at which you received your Bachelor's degree or attended college and indicate the year of your degree (or of your most recent attendance). If you have not completed a Bachelor's degree, please give the name of the college or university at which you earned the largest number of college credits.

(PLEASE PRINT NAME. DO NOT ABBREVIATE.)

Name of College/University ______________________________

City, State ______________________________

Year of Degree (or most recent attendance) .... 19_____

10. Please print the name of the college/university at which you received your Master's or other graduate degree and indicate the year of your degree (or of your most recent attendance). If you have not completed a graduate degree, please give the name of the college or university at which you have earned the largest number of graduate credits. If you have completed more than one graduate degree, please fill in the information below for your highest degree.

Not applicable: No graduate credits .... [ ] (ANSWER QUESTION 11)

Name of College/University ____________________

City, State ____________________

Year of Degree (or most recent attendance) .... 19_____

11. Would you agree to our obtaining your college/university transcripts as an additional source of research data? (This information would be treated according to the same confidentiality standards as are detailed in the inside cover of this questionnaire.)

	(CIRCLE ONE)
Yes	1
No	2

Signature: ____________________

Date: ____________________

12. Are you proficient in any language(s) other than English? (CIRCLE ONLY ONE)

	(CIRCLE ONE)	
Yes	1	(ANSWER Q.13)
No	2	(SKIP TO Q.17)

13. In what language(s) are you proficient?

		(CIRCLE ALL THAT APPLY)
a.	Spanish	01
b.	Italian	02
c.	Chinese	03
d.	French	04
e.	German	05
f.	Greek	06
g.	Japanese	07
h.	Korean	08
i.	Portuguese	09
j.	Any Filipino language	10
k.	Polish	11
l.	Other (Write In) ____________________	12

14. Please answer the following questions about the non-English language in which you are most proficient. (IF YOU KNOW MORE THAN ONE NON-ENGLISH LANGUAGE, ANSWER WITH REGARD TO THE LANGUAGE IN WHICH YOU ARE MOST PROFICIENT. PLEASE WRITE THE NAME OF THAT LANGUAGE ON THE LINE BELOW.)

Language ______________________________

15. With regard to that language, how well do you do the following?

(CIRCLE ONE ON EACH LINE)

How well do you ...	Very Well	Pretty Well	Well	Not Very Well	Not at All
a. Understand that language ...	1	2	3	4	5
b. Speak that language	1	2	3	4	5
c. Read that language	1	2	3	4	5
d. Write that language	1	2	3	4	5

16. Which of the following statements accurately describes your past experience with the language other than English in which you are most proficient?

(CIRCLE ONE ON EACH LINE)

	Yes	No
a. I am a native speaker of the language	1	2
b. The language was the medium of instruction for my elementary or secondary education	1	2
c. The language was the medium of instruction for my university studies	1	2
d. I studied the language as a foreign language	1	2
e. I learned the language informally	1	2

17. What is your employment status in this school system?

(CIRCLE ONE)

Tenure appointment	1
Regular full-time appointment without tenure	2
Regular part-time appointment without tenure	3
Substitute teacher	4
Other	5

18. During the last 12 months, what is the total amount of time you have spent on in-service education in the subject you teach the majority of the time? (Include attendance at workshops, continuing education programs, etc., but do not include formal courses for which you have received college credit.)

(CIRCLE ONE)

None	1
Less than 6 hours	2
6-15 hours	3
16-35 hours	4
More than 35 hours	5

19. What type(s) of support for in-service education have you received in the last 12 months?

(CIRCLE ALL THAT APPLY)

a.	None	1
b.	Released time from teaching	1
c.	Travel and/or per diem expenses	1
d.	Stipend(s)	1
e.	Professional growth credits	1
f.	Other (Specify) ______________	1

20. Check the one category that best describes your current assignment for teaching English, Mathematics, Science and/or Social Studies, and then supply the information requested.

Self-Contained - You teach all of these subjects to a single group of students		1	
a.	Number of students in your class	2	|__|__|
b.	Number of preparations you have	2	|__|__|
Semi-Departmentalized - You teach more than one, but not all, of these subjects to any single group of students		2	
a.	Number of classes you teach	2	|__|__|
b.	Number of preparations you have	2	|__|__|
c.	Total number of students you teach	2	|__|__|__|
Departmentalized - You teach no more than one of these subjects to any single group of students		3	
a.	Number of classes you teach	2	|__|__|
b.	Number of preparations you have	2	|__|__|
c.	Total number of students you teach	2	|__|__|__|

21. Do you provide instruction in an eighth grade Gifted/Talented program at this school?

(CIRCLE ONE)

Yes	1	(ANSWER Q.22)
No	2	(SKIP TO Q.27)

22. What percentage of your classroom time is spent in teaching students in a gifted/talented program?

Percentage of time .... |__|__| %

23. Do you have special training in teaching gifted and talented children?

(CIRCLE ALL THAT APPLY)

a.	No	1
b.	Yes, in-service training	1
c.	Yes, undergraduate course credit	1
d.	Yes, graduate course credit	1
e.	Yes, continuing education credit	1

24. Do you have special certification in teaching gifted and talented children?

(CIRCLE ONE)

Yes, provisional or temporary	1
Yes, permanent or long-term	2
No	3

25. For the gifted/talented program in which you teach, how satisfied are you with the following:

(CIRCLE ONE ON EACH LINE)

	Extremely Satisfied	Satisfied	Dissatisfied	Extremely Dissatisfied
a. The financial resources available for this special program	1	2	3	4
b. The content or curriculum of the gifted/talented program	1	2	3	4
c. The amount of time available for planning and preparation of gifted/talented instruction	1	2	3	4
d. Student progress under the program	1	2	3	4
e. The selection procedures for the gifted/talented program	1	2	3	4
f. The amount of time allocated to teaching gifted classes	1	2	3	4

26. Indicate the degree to which each of the following matters are a problem in your school.

(CIRCLE ONE ON EACH LINE)

	Serious	Moderate	Minor	Not a Problem
Student tardiness	1	2	3	4
Student absenteeism	1	2	3	4
Student cutting class	1	2	3	4
Physical conflicts among students	1	2	3	4
Robbery or theft	1	2	3	4
Vandalism of school property	1	2	3	4
Student use alcohol	1	2	3	4
Student use of illicit drugs	1	2	3	4
Student possession of weapons	1	2	3	4
Physical abuse of teachers	1	2	3	4
Verbal abuse of teachers	1	2	3	4

27. In addition to your duties at this school, do you hold another paying job that is either full or part-time?

(CIRCLE ONE)

Yes, summer only	1
Yes, school year only	2
Yes, during the entire year	3
No	4

28. How many days of teaching were you absent, for any reason, during the first semester of the current school year?

(CIRCLE ONE)

No. days absent	1
1-2 days absent	2
3-4 days absent	3
5-7 days absent	4
8-11 days absent	5
12-15 days absent	6
16-20 days absent	7
21-29 days absent	8
30 or more days absent	9

29. How often has someone from your school or district who has supervisory responsibility formally observed your teaching during the first semester of the current school year?

(CIRCLE ONE)

At least once a week	1
At least once a month	2
Several times so far this year	3
Hardly ever or never	4

30. How much time do you spend outside your regular school hours on each of the following activities during a typical week in addition to the time you spend in class?

(CIRCLE ONE ON EACH LINE)

	None	<1 hr.	1 hr.	2 hrs.	3 hrs.	4 hrs.	5+ hrs.	6+ hrs.
a. Planning and preparing for teaching	1	2	3	4	5	6	7	8
b. Correcting papers	1	2	3	4	5	6	7	8
c. Other record keeping/ paperwork	1	2	3	4	5	6	7	8
d. Meeting with other teachers on lesson planning, curriculum development, guidance	1	2	3	4	5	6	7	8
e. Coordinating a curriculum area or department	1	2	3	4	5	6	7	8
f. Supervising students (halls, lunchroom, study hall, playground)	1	2	3	4	5	6	7	8
g. Coaching or advising extracurricular activities	1	2	3	4	5	6	7	8
h. Communicating with parents	1	2	3	4	5	6	7	8

31. Since the beginning of the current school year, how many students' parents (or guardians) have you talked with individually regarding their child's classroom performance?

(CIRCLE ONE)

None	1
1-4 students' parents	2
5-9 students' parents	3
10-19 students' parents	4
20-29 students' parents	5
30-39 students' parents	6
40-59 students' parents	7
60 or more students' parents	8

32. How much time each week do students in your classes make use of microcomputers for instructional purposes related to the material you cover in your classes (excluding computer literacy, programming and the like)?

(CIRCLE ONE)

We have no facility in our school for this purpose	1	(SKIP TO Q.35)
None (we have such a facility, but I don't use it)	2	(SKIP TO Q.35)
Less than one hour per week	3	
One hour per week	4	
Two hours per week	5	
Three hours per week	6	
Four hours per week	7	
Five or more hours per week	8	

33. What proportion of your students use a microcomputer for this kind of instructional purpose on a regular basis?

(CIRCLE ONE)

None	1
Fewer than 10%	2
11-25%	3
26-50%	4
51-75%	5
76-90%	6
More than 90%	7

34. Which of the following best describes how you make instructional use of microcomputers with these students?

(CIRCLE ONE)

Totally for enrichment purposes	1
Mainly for enrichment purposes, a little for remedial purposes	2
About equally split between enrichment and remedial purposes	3
Mainly for remedial purposes	4
Totally for remedial purposes	5

35. How many person-hours were required to complete this form?

______ Hours ______ Minutes

36. Please provide the information requested below so we can reach you if any clarification of your responses is needed.

____
Name

(____) ________________ Telephone Number

☐ Home or
☐ Office

Best time of day to call: ______ AM PM

Item 7

School Questionnaire

OMB No. 1850-0593
Expires June 30, 1987

SCHOOL QUESTIONNAIRE
NELS: 88
NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988
FIELD TEST

Prepared for:

U.S. Department of Education
Center for Education Statistics

Prepared by:

NORC,
A Social Science Research Center
University of Chicago

SCHOOL NO.: |___|___|

As a matter of policy, the Center for Education Statistics is concerned with protecting the privacy of individuals who participate in voluntary surveys. We want to let you know that:

1. Section 406 of the General Education Provisions Act (20-USC 1221e-1) allows us to ask you the questions in this questionnaire.
2. You may skip any questions you do not wish to answer.
3. We are asking you these questions in order to gather information about what happens to students as they move into high school and make decisions about postsecondary education and work.
4. Your responses will be merged with those of other respondents, and the answers you give will never be identified as yours.

This questionnaire is directed to the school principal. It is divided into 8 sections or "Parts." Parts 1 - 6 request mainly factual information about this school and its programs. These sections can be answered either by the principal or by a designee who is able to provide the requested information. The final sections, Parts 7 - 8, request judgmental evaluations about the school climate, and we ask that these sections be completed by the principal personally.

Some factual questions may request information that is not readily available from school records (e.g., the racial/ethnic composition of the eighth grade student body). Informed estimates are acceptable for such questions. Your estimates will be better than ours. Please answer directly on the questionnaire by circling the appropriate number or by writing your response in the space provided.

We realize that you are very busy; however, we ask that you complete the questionnaire and return it to your school's study coordinator within the next two weeks (or sooner, if asked by the coordinator). To protect the confidentiality of your responses, we suggest that you return the completed questionnaire to its original envelope and then seal the envelope before turning it in.

Thank you very much for your help.

PART 1. SCHOOL CHARACTERISTICS

1. Circle all grade levels included in your school.

PK K 01 02 03 04 05 06 07 08 09 10 11 12 13+

2. As of October 1, 1986 (or the nearest date for which data are available), what was the total student enrollment in your school?

|___|___|___|___| Number

3. As of October 1, 1986 (or the nearest date for which data are available), what was the total eighth-grade student enrollment in your school?

|___|___|___|___| Number

4. Which category best describes your school?

(CIRCLE ONE)

Public school 1
Private or Catholic:
  Diocesan 2
  Parish 3
  Religious Order 4
  Private, Other Religious Affiliated 5
  Private, Not Religious Affiliated 6

5. What is the major program orientation for eighth grade students in your school?

(CIRCLE ONE)

General (comprehensive) .... 1 (SKIP TO Q6)
Specialized .... 2 (GO TO A)

(CIRCLE ONE)

A. Science/technology 1
Arts 2
Vocational 3
Handicapped 4
Gifted 5
Other (write in)
______________________ 6

6. How many days are in the school year for eighth grade students in your school?

|__|__|__| Number of school days

7. How many class periods are in the school day for eighth grade students in your school?

|__|__| Number of class periods

8. How many minutes long are class periods for eighth grade students in your school?

|__|__|__| Number of minutes

9. Please provide the name, address, and grade span of the schools that students in your school would commonly attend upon completion of the eighth grade. In addition, indicate the percentage of eighth grade students you would expect to attend each of the schools you list below.

	Name	Address	Grade span	Percentage expected to attend
A.	______	______ ______	______	______%
B.	______	______ ______	______	______%
C.	______	______ ______	______	______%
D.	______	______ ______	______	______%

PART 2. STUDENT CHARACTERISTICS

1. What is the average daily attendance rate for eighth grade students in your school? (Include both excused absences and unexcused absences in figuring this rate.)

|__|__|__| %

2. On the average, what percentage of eighth grade students enrolled at the beginning of the school year are still enrolled at the end of the school year? (Exclude transfers from other schools in figuring this rate.)

|__|__|__| %

3. What percentages of your current eighth grade students are members of the following groups? (Percents should sum to 100)

American Indian or Alaskan Native	|__|__|__| %
Asian or Pacific Islander	|__|__|__| %
Hispanic	|__|__|__| %
Black, not of Hispanic origin	|__|__|__| %
White, not of Hispanic origin	|__|__|__| %

4. What percentage of the eighth grade students enrolled in your school are male?

|__|__|__| %

5. What percent of your eighth grade students would you estimate live in a single parent family?

	(CIRCLE ONE)
None	1
1%-25%	2
26%-50%	3
51%-75%	4
76%-99%	5
All	6
Cannot estimate	7

6. For each of the academic subjects listed below, indicate if eighth grade students are ability grouped for instruction.

	(CIRCLE ONE) Yes	No
English/Reading	1	2
Mathematics	1	2
Science	1	2
Social Studies/History	1	2

7. What percent of the eighth grade students are limited English proficient (LEP)?

Circle the Percentage Range that Represents Your Best Estimate

	(CIRCLE ONE)
10% or less	01
11-20%	02
21-30%	03
31-40%	04
41-50%	05
51-60%	06
61-70%	07
71-80%	08
81% or more	09

8. How many teachers are assigned to teach English language/language assistance classes for eighth grade (for example LEP classes or ESL classes)? Please provide your best estimate. Include part-time teachers.

Number of teachers |__|__|__|

9. Please indicate which of the following subjects are offered by your school at the eighth grade.

(CIRCLE ONE FOR EACH LINE)

	YES	NO
a. English taught to LEP students	1	2
b. Foreign language courses	1	2
c. Academic subjects taught in:		
English	1	2
Spanish	1	2
Italian	1	2
Chinese	1	2
French	1	2
German	1	2
Greek	1	2
Japanese	1	2
Korean	1	2
Portuguese	1	2
Any Filipino language	1	2
Polish	1	2
Other (Write in) ______________________	1	2
d. Which academic subjects are taught in a foreign language?		
English/reading	1	2
Mathematics	1	2
Science	1	2
Social studies/history	1	2

10. What percent of the students in your school receive the following special services? (If service is not provided, write in 000.)

Federal free and reduced-price school lunch program .... |__|__|__| %
Remedial reading .... |__|__|__| %
Remedial math .... |__|__|__| %
Bilingual education .... |__|__|__| %
English as a Second Language Training (not Bilingual Education) .... |__|__|__| %.
Special Education .... |__|__|__| %
Gifted and talented education .... |__|__|__| %
Occupation/job training .... |__|__|__| %

PART 3. TEACHING STAFF CHARACTERISTICS

1. How many full-time regular teachers work in your school?

|___|___|___| Number

2. How many part-time teachers (for example substitutes, itinerant teachers, etc.) work in your school?

|___|___|___| Number

3. How many full-time regular teachers teach the eighth grade in your school?

|___|___|___| Number

4. How many part-time teachers (for example substitutes, itinerant teachers, etc.) teach the eighth grade in your school?

|___|___|___| Number

5. What is the major way your eighth grade teaching staff delivers English, Mathematics, Science, and Social Studies instruction?

(CIRCLE ONE)

Self-contained - one teacher teaches all of these subjects to the same group of students	1
Departmentalized - a given teacher teaches no more than one of these subjects to a single group of students	2
Semi-departmentalized - a given teacher teaches more than one, but not all of these subjects to a single group of students	3

6. What is the base salary for a beginning teacher with a bachelor's degree in your school district? Give either the dollar amount or the range.

$|___|___|,|___|___|___|.00 - Dollar amount Or

$|___|___|,|___|___|___|.00 to $|___|___|,|___|___|___|.00 - Range

7. How many full-time teachers on your regular teaching staff have taught for less than three years?

|___|___|___| Number

8. What percentages of your full-time regular teaching staff are members of the following groups?

American Indian or Alaska Native	|__|__|__| %
Asian or Pacific Islander	|__|__|__| %
Hispanic	|__|__|__| %
Black, not of Hispanic origin	|__|__|__| %
White, not of Hispanic origin	|__|__|__| %

9. How many members of your full-time regular teaching staff have a degree beyond the bachelor's degree?

|__|__|__| Number

10. Is the regular teaching staff in your school covered by a collective bargaining procedure(s)?

(CIRCLE ONE)

Yes	1
No	2
Regulations prohibit such procedures	3

PART 4. SCHOOL POLICIES and PRACTICES

1. Which of the following best describe the practices for assignment of students to your school?

(CIRCLE ALL THAT APPLY)

All pupils in a particular geographic area (or district) attend this school	1
Pupils in a particular geographic area (or district) are generally assigned to this school but transfers are frequently allowed	2
Pupils are assigned from particular areas to achieve desired racial or ethnic composition in the school	3
Pupils are assigned to this school based on an entrance test or other achievement criteria	4
Other (specify) ________________________	5
Private school, does not apply	6

2. Does your school have formal admission/application procedures?

Yes	1	(GO TO Q.3)
No	2	(SKIP TO Q.6)

3. How many students applied for admission to your school for the current school year?

|___|___|___|___| Number

4. How many applicants were accepted for admission to your school for the current school year?

|___|___|___|___| Number

5. How often is consideration given to the following items regarding your school's admission practices?

(CIRCLE ONE ON EACH LINE)

	Always	Usually	Sometimes	Seldom	Never
Level of performance on standardized achievement or aptitude test	1	2	3	4	5
Level of performance on written admission test	1	2	3	4	5
Personal interview with parent/guardian	1	2	3	4	5
Personal interview with student	1	2	3	4	5
Recommendation of a former principal	1	2	3	4	5
Recommendation of a former teacher	1	2	3	4	5
Recommendation from a non-family friend (e.g., pastor, rabbi)	1	2	3	4	5
Strong academic record	1	2	3	4	5

6. Does your school have a policy requiring students to maintain a minimum grade point average in order to participate in school activities such as sports?

(CIRCLE ONE)

Yes 1
No 2

7. Does your school have a written statement of standards for student behavior (discipline)?

(CIRCLE ONE)

Yes 1
No 2

8. Is this a public school?

(CIRCLE ONE)

Yes .... 1 **(SKIP TO PART 5, Q.1)**
No 2

9. What is the maximum yearly tuition to attend your school?

$|___|___|,|___|___|___|.00 - Amount

10. What percentage of your students pay the maximum yearly tuition?

(CIRCLE ONE)

0%-25%	1
26%-50%	2
51%-75%	3
76%-100%	4

11. For what percentage of the students in your school are you currently providing financial aid?

No provisions for financial aid are provided	000

|___|___|___| %

12. In regards to your school's admissions practices, how often is consideration given to the student's (family's) ability to pay your school's tuition?

(CIRCLE ONE)

Always considered	1
Usually considered	2
Sometimes considered	3
Seldom considered	4
Never considered	5

PART 5. GRADING AND/OR TESTING STRUCTURE

1. List the standardized tests that are used to assign eighth graders to high school courses/programs. For each, list the name of the test that is used, the grade level at which it is administered, and the date of its last administration (for example 09 22 86).

Test Name	Grade Level	Date
____________________	__________	|__|__| Mo. |__|__| Day |__|__| Yr.
____________________	__________	|__|__| Mo. |__|__| Day |__|__| Yr.
____________________	__________	|__|__| Mo. |__|__| Day |__|__| Yr.
____________________	__________	|__|__| Mo. |__|__| Day |__|__| Yr.

2. For each item listed below, indicate the level of influence each has in the assignment and/or selection of high school courses/programs for eighth grade students in your school.

(CIRCLE ONE ON EACH LINE)

	A Lot	Moderate	A Little	None
Counselors	1	2	3	4
Teachers	1	2	3	4
Parents	1	2	3	4
Test Scores	1	2	3	4

3. How often are students' standardized test results provided to teachers?

Always	Usually	Sometimes	Seldom	Never
1	2	3	4	5

4. How often are standardized test results provided to families of students?

Always	Usually	Sometimes	Seldom	Never
1	2	3	4	5

5. How often are standardized test results used for counseling purposes?

Always	Usually	Sometimes	Seldom	Never
1	2	3	4	5

6. Are eighth grade students required to pass minimum competency tests in any of the following subject areas?

(CIRCLE ONE FOR EACH LINE)

	YES	NO
Competency test for **reading**	1	2
Competency test for **mathematics**	1	2
Competency test for **science**	1	2
Competency test for **social studies**	1	2
Competency test for **English/language arts**	1	2

PART 6. SCHOOL PROGRAMS

1. How much instruction is required for eighth grade students in each of the following subjects?

(CIRCLE ONE ON EACH LINE)

	No Specific Amount	Full Year	One-Half Year	Less Than One-Half Year
English/Reading	1	2	3	4
Mathematics	1	2	3	4
Science	1	2	3	4
Computer Education	1	2	3	4
Social Studies/History	1	2	3	4
Foreign Language	1	2	3	4
Art	1	2	3	4
Music	1	2	3	4
Physical Education	1	2	3	4
Family Life and Sex Education	1	2	3	4
Moral/Ethics Education	1	2	3	4
Religious Education	1	2	3	4
Career Guidance	1	2	3	4
Vocational Exploration	1	2	3	4
Industrial Arts	1	2	3	4
Homemaking	1	2	3	4

2. Does your school offer special remedial programs in any of the following subject areas for eighth grade students?

(CIRCLE ONE ON EACH LINE)

	YES	NO
Reading	1	2
Mathematics	1	2
Social studies/history	1	2
Science	1	2
English/language arts	1	2

3. Is there a Gifted/Talented program for the eighth grade students in your school?

(CIRCLE ONE)

Yes	1	**(GO TO Q.4)**
No	2	**(SKIP TO Q.8)**

4. What subjects does that program cover?

(CIRCLE ALL THAT APPLY)

Mathematics	1
Science	1
English/Literature	1
Social Studies	1
Foreign Language(s)	1
Computer Science	1
Music	1
Art	1
Other (Write in) ______________________	1

5. Does gifted/talented instruction take place primarily within your school/school building, or primarily outside it (for example, at another school)?

(CIRCLE ONE)

Within this school	1
At some other location	2

6. Which of the following statements BEST describe the way eighth grade gifted and talented instruction is organized for the students in your school:

(CIRCLE ALL THAT APPLY)

Students are taken from their regular classes for supplemental gifted/talented instruction	1
Gifted/talented students are grouped together for all or most subjects and have their own curriculum	1
Gifted/talented students are given enriched instruction only in the particular subjects in which they excel	1
Gifted/talented students are given supplemental instruction within their own classroom	1
Other arrangement Please specify ______________________	1

7. What main factors are considered in the selection of students for the gifted and talented program?

(CIRCLE ALL THAT APPLY)

Scores on standardized examinations given to all students	1
Additional test results	1
Teacher or counselor recommendations and reports	1
Parental requests	1
School grades	1
Providing opportunities for racial and ethnic groups	1
Personal interview	1
Student requests	1
Other (please specify) ____________________	1

8. What percentage of your eighth graders participate in the activities listed below?

(CIRCLE ONE ON EACH LINE)

	Activity Not Available	Less Than 10%	11%-20%	21%-50%	51%-100%
Academic honor societies	1	2	3	4	5
Band	1	2	3	4	5
Chorus or choir	1	2	3	4	5
Computer club	1	2	3	4	5
Drama clubs	1	2	3	4	5
Service clubs	1	2	3	4	5
Mathematics club	1	2	3	4	5
Science club	1	2	3	4	5
Other subject matter clubs (e.g., history)	1	2	3	4	5
Science fairs	1	2	3	4	5
Student council(s)	1	2	3	4	5
Student newspaper	1	2	3	4	5
Student yearbook	1	2	3	4	5
Foreign language clubs	1	2	3	4	5
Orchestra	1	2	3	4	5
Religious organizations	1	2	3	4	5
Debate or speech teams	1	2	3	4	5
Interscholastic sports	1	2	3	4	5
Intramural sports	1	2	3	4	5
Vocational education clubs	1	2	3	4	5
Cheerleading and related activities	1	2	3	4	5

PART 7. SCHOOL CLIMATE

1. For each of the characteristics listed below which help to define the climate of your school, indicate how much it describes your school.

(CIRCLE ONE ON EACH LINE)

	Not at all accurate for this school				Very much accurate for this school
There is conflict between teachers and administrators	1	2	3	4	5
Discipline is emphasized at this school	1	2	3	4	5
Students place a priority on learning	1	2	3	4	5
The classroom environment for students is structured	1	2	3	4	5
Teachers at this school press students to do their best	1	2	3	4	5
Students are expected to do homework	1	2	3	4	5
Teacher morale is high	1	2	3	4	5
Teachers have a negative attitude about students	1	2	3	4	5
Teachers find it difficult to motivate students	1	2	3	4	5
The school day for students is structured	1	2	3	4	5
Deviation by students from school rules is not tolerated	1	2	3	4	5
The school environment is "flexible"	1	2	3	4	5
Teachers take the time to respond to students' individual needs	1	2	3	4	5
The school emphasizes sports	1	2	3	4	5
Students face competition for grades	1	2	3	4	5

2. Please indicate which of the following exists in your school.

(CIRCLE ONE ON EACH LINE)

	YES	NO
Visitors required to sign in at the main office	1	2
Hall passes required:		
Library	1	2
Lavatory	1	2
Office	1	2
Counselor	1	2
No-smoking rules prohibiting smoking by students in school or on school grounds	1	2
Academic counseling for students	1	2
Behavioral problem counseling for students	1	2
Vocational counseling for students	1	2
Rules about student dress:		
Uniform required	1	2
Certain forms of dress forbidden	1	2
Students prohibited from leaving school or school grounds during school hours	1	2

3. Indicate the degree to which each of the following matters is a problem in your school.

(CIRCLE ONE ON EACH LINE)

	Serious	Moderate	Minor	Not a Problem
Student tardiness	1	2	3	4
Student absenteeism	1	2	3	4
Student cutting class	1	2	3	4
Physical conflicts among students	1	2	3	4
Robbery or theft	1	2	3	4
Vandalism of school property	1	2	3	4
Student use of alcohol	1	2	3	4
Student use of illicit drugs	1	2	3	4
Student possession of weapons	1	2	3	4
Physical abuse of teachers	1	2	3	4
Verbal abuse of teachers	1	2	3	4

PART 8. SCHOOL-PARENT INTERACTIONS

1. What percentage of your eighth grade students have families who are involved in volunteer work at your school?

None	Less than 10%	11%-20%	21%-50%	51%-100%
0	1	2	3	4

2. Do the following practices exist in your school?

(CIRCLE ONE ON EACH LINE)

	YES	NO
Parents notified of unexcused absences	1	2
Parents are given interim reports during the grading period if grades are low	1	2
Parents notified when student sent to the office for disruptive behavior	1	2
Parent conferences scheduled at the parent's request to discuss student behavior and/or performance	1	2
Parent conferences scheduled at the school's request to discuss student behavior and/or performance	1	2
Parents' participation as volunteers is encouraged by the school	1	2
Parents are encouraged to be involved in policy decisions (e.g., addition of new programs)	1	2
Parent-school associations are encouraged by the school	1	2

3. How often are individual parent/teacher conferences held?

(CIRCLE ONE)

More than once a month	1
Several times a semester	2
Once a semester	3
Once a year	4
Never	5

4. In your school what happens to a student who is caught doing one of the following? (Expulsion means the student is asked to permanently withdraw: suspension means the student is asked to leave for a period of time, but is permitted to come back to the school.)

FIRST OCCURRENCE

(CIRCLE ONE ON EACH LINE)

	No Action	Minor Discipl. Action	Suspension	Expulsion
Cheating	0	1	2	3
Physical injury to another student	0	1	2	3
Possession of alcohol	0	1	2	3
Possession of illicit drugs	0	1	2	3
Possession of weapons	0	1	2	3
Use at school of alcohol	0	1	2	3
Use at school of illicit drugs	0	1	2	3
Smoking at school	0	1	2	3
Verbal abuse of teacher or staff member	0	1	2	3
Physical injury to a teacher or staff member	0	1	2	3
Theft of school property	0	1	2	3
Classroom disturbance	0	1	2	3
Use of profanity	0	1	2	3

5. In your school what happens to a student who is caught doing one of the following? (Expulsion means the student is asked to permanently withdraw: suspension means the student is asked to leave for a period of time, but is permitted to come back to the school.)

REPEATED OCCURRENCE

(CIRCLE ONE ON EACH LINE)

	No Action	Minor Discipl. Action	Suspension	Expulsion
Cheating	0	1	2	3
Physical injury to another student	0	1	2	3
Possession of alcohol	0	1	2	3
Possession of illicit drugs	0	1	2	3
Possession of weapons	0	1	2	3
Use at school of alcohol	0	1	2	3
Use at school of illicit drugs	0	1	2	3
Smoking at school	0	1	2	3
Verbal abuse of teacher or staff member	0	1	2	3
Physical injury to a teacher or staff member	0	1	2	3
Theft of school property	0	1	2	3
Classroom disturbance	0	1	2	3
Use of profanity	0	1	2	3

6. How many person-hours were required to complete this form?

_____ Hours _____ Minutes

7. Please provide the information requested below so we can reach you if any clarification of your responses is needed.

____
Name

(____) ________________
Telephone Number

☐ Home or
☐ Office

Best time of day to call: _______ AM PM

Item 8

New York Supplement

NORC-4455
1/87

NEW YORK SUPPLEMENT

NELS:88
NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988 FIELD TEST

Prepared for: New York State Education Department

**By: NORC, A Social Science Research Center
University of Chicago**

BEGIN DECK 1

01-06/(ID)

Dear Student:

The New York State Education Department has taken the opportunity to add special questions to this survey.

The information will be used as an important part of an evaluation of the Regents Action Plan.

Your cooperation in completing this supplement is appreciated.

Gordon M. Ambach
Commissioner of Education

Office Use Only:

Supplements

New York Supplement 1 07/

Questions for New York State Field Test

Student Questionnaire Augmentation NELS:88

1. Can you take any course given in your school?

(CIRCLE ONE)

Yes 1 08/
No 2

2. Generally speaking, how well do you like the courses given in your school?

(CIRCLE ONE)

I like the courses very much 1
I like the courses somewhat 2 09/
I dislike the courses somewhat 3
I dislike the courses very much 4

3. Generally speaking, how successful do you feel you have been in the courses you have taken?

(CIRCLE ONE)

Very successful 1
Somewhat successful 2 10
Not at all successful 3

4. Are you going to work toward a Regents diploma?

(CIRCLE ONE)

Yes .... 1 --> SKIP TO Question 6, next page
No .... 2 --> GO TO Question 5, next page 11
Not sure .... 3 --> GO TO Question 5, next page

5. If you are not going to work towards a Regents diploma, why not?

(CIRCLE ALL THAT APPLY)

Too hard 1 12/

Too many courses required 1 13/

Don't want to take a foreign language 1 14/

Other (WRITE IN)________________________ 1 15/

6. In which subjects do you plan to take sequences (3 credits) in high school?

(CIRCLE ALL THAT APPLY)

Mathematics 1 16/

Foreign Languages 1 17/

Science 1 18/

Music/Art 1 19/

Occupational/Vocational Education 1 20/

7. Are you going to take a foreign language in high school?

(CIRCLE ONE)

Yes .... 1 —> SKIP TO Question 9, next page

No .... 2 —> GO TO Question 8

Not sure .... 3 —> GO TO Question 8 21

8. If you are not going to take a foreign language in high school, why not?

(CIRCLE ALL THAT APPLY)

Foreign language is too hard 1 22

A foreign language won't be useful to me in later life 1 23

My school doesn't offer the foreign language I want 1 24

I'm not interested in a Regents diploma 1 25

Other (WRITE IN)______________________________ 1 26

9. Are you taking any remedial classes?

(CIRCLE ONE)

Yes .... 1 --> **GO TO** Question 10

No .... 2 --> **SKIP TO** Question 12, next page 27/

10. Do you spend less time in your regular classes than other students because of remedial work?

(CIRCLE ONE)

Yes .... 1 --> **GO TO** Question 11

No .... 2 --> **SKIP TO** Question 12, next page 28/

11. If yes, check the subjects in which you lose class time because of remedial work.

(CIRCLE ALL THAT APPLY)

English	1	29/
Social Studies	1	30/
Science	1	31/
Mathematics	1	32/
Technology Education	1	33/
Home and Career Skills	1	34/
Physical Education	1	35/
Health Education	1	36/
Art	1	37/
Music	1	38/
Library and Information Skills	1	39/
Foreign Language	1	40/
Other (WRITE IN) ______________________________ ...	1	41/

DECK 18

12. How important is it for you to do each of the following?

(CIRCLE ONE ON EACH LINE)

	Very Important	Somewhat Important	Unimportant	Not Important At All	
a. Attend school on a regular basis	1	2	3	4	42/
b. Finish high school	1	2	3	4	43/
c. Get a Regents diploma	1	2	3	4	44/

13. Are high school courses available to eighth graders in your school?

(CIRCLE ONE)

Yes .... 1 —> GO TO Question 14

No .... 2 —> SKIP TO Question 15 45/

Don't know .... 8 —> SKIP TO Question 15

14. Are you taking a high school course this year?

(CIRCLE ONE)

Yes .... 1 —> STOP 46/

No .... 2 —> GO TO Question 15

15. Check the subjects in which you would like to have taken a high school course this year.

(CIRCLE ALL THAT APPLY)

English	1	47
Social Studies	1	48
Foreign Language	1	49
Art	1	50
Music	1	51
Occupational/Vocational Education	1	52
Mathematics	1	53
Science	1	54

Item 9

Summary of Cognitive Test Battery

The accompanying materials are similar to those used in the NELS:88 Field Test. They include reading, U.S. history/citizenship/geography, science, and mathematics questions designed to provide information about the range of eighth, tenth, and twelfth grade students' knowledge and skills.

SAMPLE ITEMS - NELS READING TEST

Test directions:

Read each passage carefully and then answer the questions about it. For each question, decide on the basis of the passage which one of the choices best answers the question. Draw a circle around the letter of the answer you choose.

Questions 1-4 refer to the following passage.

> I am not sure that I can draw an exact line between wit and humor, but I am positive that humor is the more comfortable quality. Humorous persons, if their gift is genuine, are always agreeable companions. They have pleasant mouths turned up at the corners. To those corners are tied marionette strings that twitch at the slightest jest. But, the mouth of a merely witty person is hard and sour right up until the moment of discharge. Rarely is the flash from a witty person comforting, whereas a humorous person radiates a general pleasure, like another candle in the room.

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1. The phrase "draw an exact line" (line 1) means that the author is attempting to show that wit and humor are

   (A) not as common today as in the past
   (B) quite different from each other
   (C) pleasant, but only in limited doses
   (D) as unpredictable as people themselves

2. Which of the following best expresses the author's main point?

   (A) It is more pleasant to be with humorous people than witty people.
   (B) Humor is more difficult to achieve than wit.
   (C) Humorous people make friends easily.
   (D) Witty people are not usually humorous, but humorous people are usually witty.

3. The author uses marionettes to illustrate that humorous people

   (A) smile frequently
   (B) control their companions
   (C) are old fashioned
   (D) are not genuine

4. The author implies that witty people are likely to make remarks that are

   (A) insincere
   (B) emotional
   (C) displeasing
   (D) irrelevant

Key:

1. B
2. A
3. A
4. C

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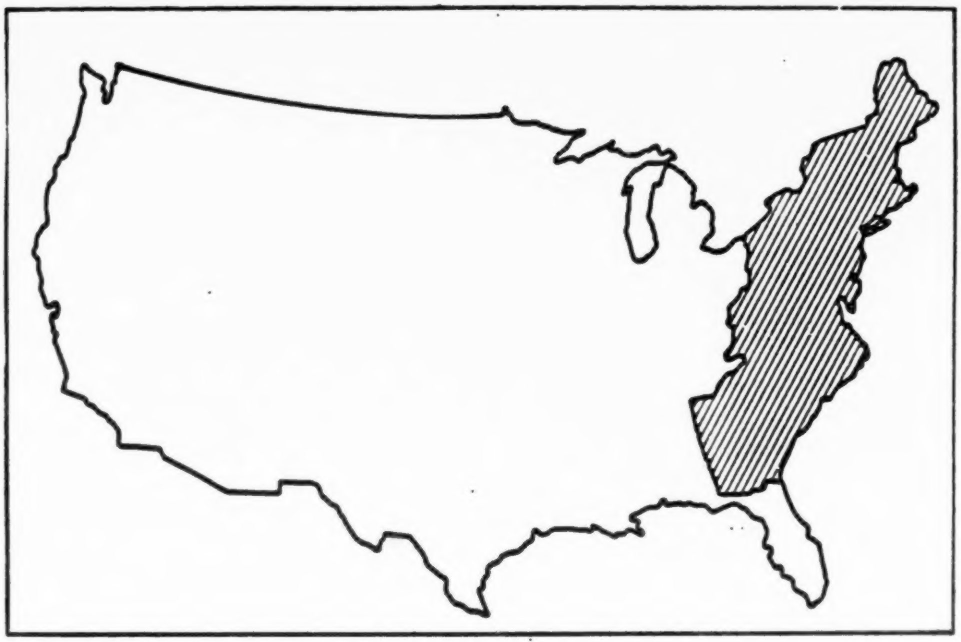
SAMPLE ITEMS

NELS U.S. HISTORY/CITIZENSHIP/GEOGRAPHY

Test directions:

Each of the questions in this section is followed by two, four or five suggested answers. Select the best for each question, then draw a circle around the letter of the answer you choose.



1. What does the shaded area on the map above represent?

   (A) The Louisiana Purchase
   (B) The Gadsden Purchase
   (C) The states that stayed in the Union
   (D) The original thirteen colonies

2. What is the purpose of most of the rights protected by the United States Constitution?

   (A) To abolish poverty
   (B) To help police do their job
   (C) To make court action simpler
   (D) To guarantee individual freedoms
   (E) To support the decisions of the President

3. Brown v. Board of Education of Topeka (1954) involved a famous Supreme Court decision which has greatly affected education in the United States.

What was the decision in this case?

(A) The right of Black people to attend integrated schools was insured.
(B) The rights of states to determine school admittance policies was upheld.
(C) Separate schools were ruled inherently unequal.
(D) The right of the federal government to run schools was guaranteed.

Key:

1. D
2. D
3. C

SAMPLE ITEMS - NELS SCIENCE TEST

Test directions:

Each of the question in this section is followed by three, four or five suggested answers. Select the best answer for each questions, then draw a circle around the letter of the answer you choose.

1. You have a specific amount of a salt that you wish to dissolve in a large container of water. The rate at which the salt dissolves will be increased by all of the following actions EXCEPT

   (A) heating the water
   (B) crushing the salt
   (C) stirring the water
   (D) decreasing the volume of the water

2. Why can astronauts wearing space suits jump much higher on the Moon than on the Earth?

   (A) The pull of gravity on the Moon is much less than it is on the Earth.
   (B) There is no air on the Moon.
   (C) Their spacesuits help them to jump farther.
   (D) The Moon has less magnetism than the Earth has.

3. People who are trying to lose weight often count calories. What is measured by counting calories?

   (A) The amount of a special kind of diet food
   (B) The amount of fat in a person's body
   (C) The amount of energy in the foods a person eats
   (D) The weight of the different foods a person eats

4. What is the probability that two people who are heterozygous for brown eye (Bb) will have a blue-eyed child? (B = gene for brown eye color; b = gene for blue eye color)

(A) 0%
(B) 25%
(C) 50%
(D) 75%

Key:

1. D
2. A
3. C
4. B

SAMPLE ITEMS - NELS MATHEMATICS

Test directions:

Questions 1-3 each consist of two quantities, one in Column A and one in Column B. You are to compare the two quantities and in your test booklet completely fill in the space

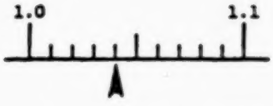
A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

Notes:
1. In certain questions, information concerning one or both of the quantities to be compared is centered above the two columns.
2. A symbol that appears in both columns represents the same thing in Column A as it does in Column B.
3. Letters such as x, n, and k stand for real numbers.

	COLUMN A	COLUMN B	
1.	x if $x + 3 = 6$	y if $y + 3 = 5$	A B C D
2.	Value of 11 dimes	$1.11	A B C D
3.	Length represented by 3 inches on a scale of 4 feet to an inch	A length of 12 feet	A B C D

Question 4. Following each problem in this section, there are three, four or five suggested answers. Work each problem in your head or on a blank space provided at the right of the page. Then look at the suggested answers and decide which one is best. Draw a circle around the letter of the answer you choose.

Note: Figures that accompany problems in this section are drawn as accurately as possible EXCEPT when it is stated in a specific problem that its figure is not drawn to scale.



The position on the scale indicated by the arrow is

A 1.004

B 1.04

C 1.08

D 1.4

E 1.8

4. The position on the scale indicated by the arrow is

(A) 1.004
(B) 1.04
(C) 1.08
(D) 1.4
(E) 1.8

Key:

1. A
2. A
3. B
4. B